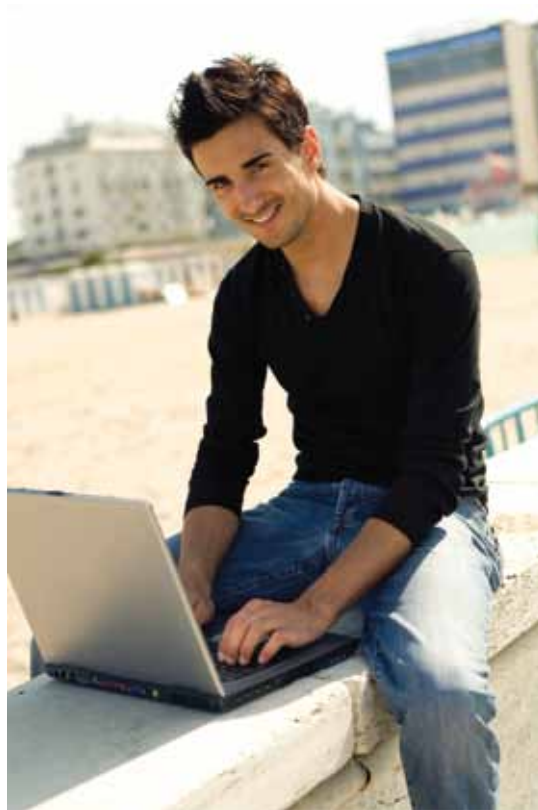


PROLINK®

www.prolink2u.com



Protecting Your Data

UPS

CATALOGUE

Revision 2012



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Fida International (S) Pte Ltd has been a provider of technologically innovative and user-friendly products manufactured under the brand name “PROLiNK®” since 1991. With more than two decades of professional experience in the information communications sector, PROLiNK is now renowned as a specialist in its field, especially in area of Backup UPS products.

Over the years, PROLiNK has built its presence through a strong foundation of technological leadership within the South Asian, South-east Asian and Middle Eastern regions and is continuing to build its presence worldwide. With its current network of sales offices in more than 20 countries, customers can be assured that PROLiNK is able to provide the right solutions to meet the needs of both home and business users within each geographical location both efficiently and effectively.

The company’s quest for continuous improvement and quality assurance to its customers has earned us the ISO9001 quality certification since 1999. With its consistently strong commitment to quality, customers can be assured of they are getting true value - superior quality products at affordable prices.

Our Mission

Accentuate the best for the e-generation

PROLiNK® aspires to accentuate the best for the e-generation. With technology becoming an essential aspect of modern living, the e-generation concept has gradually become ingrained in our lives and digital literacy is becoming more and more commonplace.

PROLiNK products are designed to make technology work for the e-generation. Created with the end-user in mind, our products are crafted to enhance performance whether you are at work or play – our products work harder, while you work smarter to achieve your desired results with less effort and better efficiency.

Providing value to our consumers – whether home or business users, remains a firm commitment of PROLiNK. With its wide range of quality products, PROLiNK makes it easy for home users to find user-friendly yet affordable solutions for their technological needs, while business users are assured of reliable and secure solutions for their network infrastructure.

Our Vision

Ideas, Innovation and Information

PROLiNK® aims to be the key driving force behind technological changes and improvements in both developing and developed countries. With its strong focus on technology, our team sets high standards for itself in the areas of innovation, change and improvement so as to provide the next generation of users with products that are suitable for their technology advanced environments.

The small “i” in PROLiNK represents ideas, innovation and information – three key pillars of growth that drive us towards achieving excellence in our field of expertise and challenges us to think beyond our usual boundaries.

Core Values

Secured Information Management

With more than two decades of professional experience in providing backup power solutions to our customers, we are able to support our customers with superior technological know-how and expertise, as well as advice on market trends. At the same time, we are also fully committed to protecting the privacy of our customers and to manage confidential information discreetly.

Innovative Design

Our products are carefully thought out to ensure that each item is designed to meet the needs of our customers. With the team's solid experience in the UPS market, customers can be certain that our designs are innovative yet functional, and suitable for each dynamic market that we have a presence in.

Quality Manufacturing

Strict and rigorous testing makes up a huge part of our quality control procedures. We ensure that every item meets our strict standards – from the individual components to the actual finished product.

Superior Service Standards

PROLiNK is particular about its service standards. For customers, only the best service is permitted. We provide responsive service in all technical support and product matters, and special assistance with product design, technical and marketing issues upon request.

Total Quality Assurance System

Our products go through careful planning and checks at every stage of the production cycle - from the beginning stages of product design to the manufacturing and finally the actual delivery of the goods. This guarantees that our customers receive only the best quality goods – of high reliability and durability. Our total quality system has been audited and approved by globally recognized bodies.

Range of UPS

The wide range of our products gives you an infinite range of solutions:

1. **Online UPS**
2. **Line Interactive UPS**
3. **Inverter UPS**
4. **Solar UPS**

PROFESSIONAL SERIES (1P/1P) - TOWER



PRO901S/L

PRO902S/L

PRO903S/L

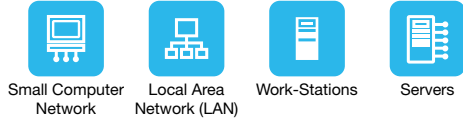
- True Double-Conversion Online UPS
- Wide input voltage range (110~300VAC)
- Input Power Factor correction 0.98
- Output Power Factor 0.80
- Generator compatible
- LCD User Interface
- RS-232 communication port or mini slot for USB / RS-232 / AS400 / SNMP communication
- Smart battery charger design for optimized battery performance
- Optional isolation transformer available

FULL SPECIFICATIONS

MODELS		PRO901 (S/L/SI/LI)	PRO902 (S/L/SI/LI)	PRO903 (S/L/SI/LI)	PRO906 (S/L/SI/LI)
Capacity	Volt-Amp	1000 VA	2000 VA	3000 VA	6000 VA
	Watt	800 W	1600 W	2400 W	4200 W
Phase		Single Phase In / Single Phase Out			
Isolation Transformer		Optional			
INPUT					
Input AC Voltage		208/220/230/240VAC or 110/115/120/127VAC			208/220/230/240VAC
Voltage Range	Low Line Transfer	160/140/120/110VAC ±5% or 80/70/60/50VAC ±5% #1			175/150/130/110VAC ±5% #1
	Low Line Comeback	168/148/128/118VAC ±5% or 84/74/64/54VAC ±5% #1			183/158/138/118VAC ±5% #1
	Low Line Comeback (Auto Restart)	168VAC ±5% or 84VAC ±5% (80%~ 100% Load) 148VAC ±5% or 74VAC ±5% (0%~ 80% Load)			180VAC ±5% (80%~ 100% Load) 155VAC ±5% (0%~ 80% Load)
	High Line Transfer	300VAC ±5% or 150VAC ±5%			280VAC ±5%
	High Line Comeback	290VAC ±5% or 145VAC ±5%			270VAC ±5%
Frequency Range		40~70Hz (Auto Sensing)			
Power Factor Correction		≥ 0.98		≥ 0.99	≥ 0.95
OUTPUT					
Output AC Voltage		208/220/230/240VAC or 110/115/120/127VAC			
AC Voltage Regulation (Battery Mode)		±1%		±3%	
Frequency Range	Synchronized Range	47~53Hz or 57~63Hz			
	Battery Mode	50Hz ±0.25Hz or 60Hz ±0.3Hz			
Current Crest Ratio		3:1			
Harmonic Distortion	Linear Load	≤3% THD	≤4% THD	≤3% THD	
	Non-Linear Load	≤6% THD	≤7% THD	≤6% THD	
Transfer Time	AC Mode to Battery Mode	Zero			
	Inverter to Bypass	4ms (Typical)			
Waveform (Battery Mode)		Pure Sinewave			
Power Factor		0.8			
EFFICIENCY					
AC Mode		88.5%	89.3%	87%	90%
Battery Mode		83.7%	88.2%	85%	85%
BATTERY					
Standard Model	Battery Type	12V9AH			12V10AH
	Numbers	2	4	6	8
	Typical Recharge Time	9 hours recover to 90% capacity			
	Charging Current (max.)	1A			
Long-Run Model	Charging Voltage	27.4VDC ±1%	54.7VDC ±1%	82.1VDC ±1%	109.4VDC ±1%
	Battery Type	Depending on applications			
	Numbers	2	4	6	8
	Charging Current (max.)	1A/5A	1A/2A/4A/8A	4A/8A	4A/8A, 10A (Optional)
	Charging Voltage	27.4VDC ±1%	54.7VDC ±1%	82.1VDC ±1%	109.4VDC ±1%
INDICATORS					
LCD Panel		UPS Status, Load Level, Battery Level, Input/Output Voltage, Discharge Timer, Fault Conditions			
ALARM					
Battery Mode		Sounding every 4 seconds			
Low Battery		Sounding every seconds			
Overload		Sounding twice every seconds			
Fault		Continuously sounding			
PHYSICAL					
Standard Model	Dimension (mm) D×W×H	400×146×205	397×145×220	421×190×318	426×190×318
	Net Weight (kgs)	9.3	17.2	28.8	35.3
Long-Run Model	Dimension (mm) D×W×H	400×146×205	397×140×220	421×190×318	426×190×318
	Net Weight (kgs)	4.8	8.9	13.5	14.3
ENVIRONMENT					
Humidity		20-90% Relative Humidity @ 0~40°C (Non-Condensing)			
Noise Level		Less than 45dB @ 1 Meter			Less than 55dB @ 1 Meter
Regulations		EN 62040-2:2006, EN 61000-3-2:2006+A1:2009+A2:2009, EN 61000-3-3:2008			
MANAGEMENT					
Smart RS232		Support Windows® 2000/2003/XP/Vista/2008, Windows® 7, Linux, Unix and MAC			

#1 : Based on load percentage 100%~80%/ 80%~70%/ 70%~60%/ 60%~0%
 L means Long-run model; S means Standard model; I means Isolation Transformer available (optional).
 Symbols: / meant for OR; × meant for Multiply of.
 All specifications, designs and contents are subjected to changes without prior notice.

APPLICATION



REAR PANEL

FOR 1K MODEL ONLY

- 1 Output receptacles
- 2 AC input
- 3 Input circuit breaker
- 4 External battery connection (only available for L model)
- 5 RS-232 communication port
- 6 Modem/Phone line/Network surge protection
- 7 Fan



FOR 2K TO 6K MODEL

- 1 Output receptacles
- 2 AC Input
- 3 Input circuit breaker
- 4 Network/Fax/Modem Surge Protection
- 5 RS-232 communication port / SNMP intelligent slot
- 6 External battery connection (only available for L model)
- 7 Output terminal
- 8 Output circuit breaker
- 9 Fan



OPTION

- USB Port for communication.
- AS-400 Card for external alarm signal.
- SNMP Card for data communication via network connection
- Output Isolation Transformer
- External PDU & Maintenance Bypass Switch (suitable for UPS up to 3KVA only)

MASTER SERIES (1P/1P) - TOWER



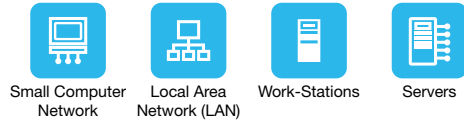
- True Double-Conversion Online UPS
- Wide input voltage range (110~300VAC)
- Input Power Factor correction 0.99
- Output Power Factor 0.80
- Generator compatible
- LCD User Interface
- RS-232 communication port or mini slot for USB / RS-232 / AS400 / SNMP communication
- Smart battery charger design for optimized battery performance
- Optional isolation transformer available

FULL SPECIFICATIONS

MODELS		PRO801S/L/SI/LI	PRO801SS/L/SI/LI	PRO802S/L/SI/LI	PRO803S/L/SI/LI	PRO806S/L/SI/LI	PRO806C/CL/CI/CLI	PRO810S/L/SI/LI	PRO810C/CL/CI/CLI
Capacity	Volt-Amp	1000 VA	1500 VA	2000 VA	3000 VA	6000 VA	6000 VA	10000 VA	10000 VA
	Watt	800 W	1200 W	1600 W	2400 W	4800 W	4800 W	8000 W	8000 W
Phase		Single Phase In / Single Phase Out							
Isolation Transformer		Optional							
INPUT									
Voltage Range	Low Line Transfer	160VAC ±5% or 80VAC ±5% @ 100% Load 110VAC ±5% or 50VAC ±5% @ 50% Load				176VAC ±3% @ 100% Load 110VAC ±3% @ 50% Load			
	Low Line Comeback	175VAC ±5% or 85VAC ±5% @ 50% Load				176VAC ±3% @ 100% Load 110VAC ±3% @ 50% Load	180VAC @ 100% Load 120VAC @ 50% Load	176VAC ±3% @ 100% Load 110VAC ±3% @ 50% Load	180VAC @ 100% Load 120VAC @ 50% Load
	High Line Transfer	300VAC ±5% or 150VAC ±5%				300VAC ±3%			
	High Line Comeback	290VAC ±5% or 145VAC ±5%				290VAC ±3%			
Frequency Range		40Hz or 70Hz				46~54Hz or 56~64Hz			
Power Factor		≥ 0.99 @ Nominal Voltage (100% Load)				≥ 0.99 @ 100% Load			
OUTPUT									
Output Voltage		208/220/230/240VAC or 110/115/120/127VAC				208/220/230/240VAC			
AC Voltage Regulation (Battery Mode)		±3%				±1%			
Frequency Range	Synchronized Range	47~53Hz or 57~63Hz				46~54Hz or 56~64Hz			
	Battery Mode	50Hz ±0.25Hz or 60Hz ±0.3Hz				50Hz ±0.1Hz or 60Hz ±0.1Hz			
Current Crest Ratio		3:1				3:1			
Harmonic Distortion	Linear Load	≤ 3% THD		≤ 4% THD		≤ 3% THD			
	Non-linear Load	≤ 6% THD		≤ 7% THD		≤ 6% THD			
Transfer Time	AC Mode to Battery Mode	Line Mode: Zero				Line Mode: Zero			
	Inverter to Bypass	Line Mode: 4ms (Typical)				Line Mode: Zero			
Waveform (Battery Mode)		Pure Sinewave							
Power Factor		0.8							
EFFICIENCY									
AC Mode		85%		88%		89%	90%	89%	90%
Battery Mode		83%				88%			
ECO Mode		97%							
BATTERY									
Standard Model	Battery Type	12V7AH	12V9AH	12V7AH	12V9AH	12V7AH		12V9AH	
	Numbers of Battery	3		6		20	16	20	
	Typical Recharge Time	4 Hours Recover to 90% Capacity				7 Hours Recover to 90% Capacity		9 Hours Recover to 90% Capacity	
	Charging Current (Max.)	1A				1A		1A	
	Charging Voltage	41.0VDC ±1%		82.1VDC ±1%		273.0VDC ±1%	218.4VDC ±1%	273.0VDC ±1%	240.0VDC
Long-Run Model	Battery Type	Depending on Applications							
	Numbers of Battery	3		6		18~20	Depending on Applications	18~20	Depending on Applications
	Charging Current (Max.)	8A				4A			
	Charging Voltage	41.0VDC ±1%		82.1VDC ±1%		273.0VDC ±1%			
INDICATORS									
LCD Display		UPS Status, Load Level, Battery Level, Input/Output Voltage, Discharge Timer, Fault Conditions							
ALARM									
Battery Mode		Sounding every 4 seconds							
Low Battery		Sounding every second							
Overload		Sounding twice every second							
Fault		Continuously sounding							
PHYSICAL									
Standard Model	Dimension (mm) D×W×H	397×145×220		421×190×318		592×250×576	360×192×688	592×250×576	440×192×688
	Net Weight (kgs)	13	14	26	28	81	72	83	82
Long-Run Model	Dimension (mm) D×W×H	397×145×220		421×190×318		592×250×576	360×192×318	592×250×576	440×192×318
	Net Weight (kgs)	7	7	13	13	25	21	27	23
ENVIRONMENT									
Humidity		20~90% RH @ 0~40°C (Non-condensing)							
Noise Level		Less than 45dB @ 1 Meter				Less than 55dB @ 1 Meter		Less than 58dB @ 1 Meter	
Regulations		EN 62040-1-1:2003, EN 62040-2:2006, EN 61000-2-2:2002, EN 61000-4							
MANAGEMENT									
Smart RS-232 / USB		Support Windows® 2000/2003/XP/Vista/2008, Windows® 7, Linux, Unix and MAC							

Derate to 60% of capacity in Frequency converter mode and to 80% when the output voltage is adjusted to 208VAC.
 If the UPS is installed or used in a place where the altitude is above than 1000m, the output power must be derated one percent per 100m.
 L means Long-run model; S means Standard model; I means Isolation Transformer available (optional).
 Symbols: / meant for OR; × meant for Multiply of.
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APPLICATION



REAR PANEL

FOR 1K TO 3K MODEL

- 1 Programmable outlets: connect to non-critical loads.
- 2 Output receptacles: connect to mission-critical loads.
- 3 AC input
- 4 Input circuit breaker
- 5 Network/Fax/Modem surge protection
- 6 Emergency power off function connector (EPO)
- 7 USB communication port
- 8 RS-232 communication port
- 9 SNMP intelligent slot
- 10 External battery connection (only available for L model)
- 11 Output terminal
- 12 Output circuit breaker
- 13 Fan



PRO801S
PRO8015S

PRO801L
PRO8015L

Online



PRO802S

PRO802L



PRO803S

PRO803L

BATTERY PACK

FOR 1K TO 3K MODEL



Capacity	1K/1.5K		2K/3K			
Battery Type	12V7AH	12V9AH	12V7AH	12V9AH	12V7AH	12V9AH
Battery Number	6 pcs	6 pcs	12 pcs	12 pcs	18 pcs	18 pcs
Dimension (DxWxH)	397×145×220		421×190×318		535×190×318	
Net Weight (kgs)	18	20	36	40	55	61

REAR PANEL

FOR 6K & 10K MODEL

- 1 RS-232 communication port
- 2 USB communication port
- 3 Emergency power off function connector (EPO connector)
- 4 Share current port (only available for parallel model)
- 5 Parallel port (only available for parallel model)
- 6 Intelligent slot
- 7 Charger fan
- 8 Power stage fan
- 9 Maintenance bypass switch
- 10 Input circuit breaker
- 11 Input/Output terminal
- 12 Output terminal 1
- 13 Output terminal 2
- 14 External battery terminal (only available for Long-run model)
- 15 Utility input terminal
- 16 Output IEC Socket



PRO806S
PRO810S

PRO806L
PRO810L

BATTERY PACK

FOR 6K & 10K MODEL



Capacity	6K/10K					
Battery Type	12V7AH	12V9AH	12V7AH	12V9AH	12V7AH	12V9AH
Battery Number	20 pcs	20 pcs	40 pcs	40 pcs	60 pcs	60 pcs
Dimension (DxWxH)	592x250x576		592x250x576		830x250x576	
Net Weight (kgs)	64	72	109	125	166	190

OPTION

- AS-400 Card for external alarm signal.
- SNMP Card for data communication via network connection
- Output Isolation Transformer
- External PDU & Maintenance Bypass Switch (suitable for UPS up to 3KVA only)

MASTER SERIES (1P/1P) - TOWER

► True double-conversion online UPS

A true double conversion UPS will provide clean, high level quality power to fully protect mission-critical devices such as sensitive networks, small computer centers, servers, telecom applications, as well as for industrial applications.

► Output power factor 0.8

Compared to the online UPSs in the current market, Master Series (1P/1P) provides better output power factor up to 0.8. It offers higher performance and efficiency for critical applications.

► Wide input voltage range (110 V -300 V)

Master Series (1P/1P) can still provide stable power to connected devices under unstable power environments.

► Programmable power management outlets

With programmable power management outlets, users can easily and independently control load segments. During power failure, this feature enables users to extend battery time to missioncritical devices by shutting down the non-critical devices.



Programmable Outlets (P1)
- connect to non-critical devices

► 50/60 Hz Frequency Converter Mode

Lock output frequency at 50Hz or 60Hz to suit power sensitive equipments.

► ECO mode operation for energy saving

Offers efficiency as high as 97% to cut energy usage & cost. UPS power application via static bypass, timely returning to online double conversion when the need arises.

► Emergency Power Off (EPO) Function

This feature can secure the personnel and equipment in case of fires or other emergencies.

► SNMP+USB+RS-232 multiple communications for 1-3K models

This feature allows either USB or RS-232 communication port to work with SNMP interface simultaneously.

► Higher accuracy for output voltage

With advanced control firmware, Master Series (1P/1P) provides high accuracy within +/- 1% for output voltage. It can be applied to precious test & IT equipment.

► Smart battery charger design to optimize battery performance

- Master Series (1P/1P) 1-3K is equipped with 2-stage charger design to guarantee battery discharge time. Besides, it will adjust charging voltage according to outside temperature. This features will extend the useful service life of batteries.
- Master Series (1P/1P) 6K and up models are equipped with 3-stage extendable charger for optimized battery performance. This feature extends the useful service life of batteries and optimizes battery recharge time. Besides, the extendable charger design can be stacked in numbers for large-capacity battery charging.

► DSP technology applied for 6K and up models

A DSP controller provides an improved and cost-effective solution with high performance.

► Maintenance bypass available for 6K and up models

Internal bypass assures continuous power to critical devices during UPS maintenance.

► Optional hot standby mode and N+X parallel redundancy available for 6K and up models

For genuinely redundant power protection, Master Series (1P/1P) (6K and up models) can either be used in parallel operation with up to 3 units or hot standby mode. Slave UPS will back up the load in the event of critical component failure. It increases power safety and availability.

► Adjustable battery numbers for 6K and up models

Master Series (1P/1P) (6K and up models) can still normal operate well with only 18 or 19 internal batteries.

► Built-in isolation transformer (Option)

With built-in isolation transformer, the UPS will offer full isolation and complete common mode noise rejection for connected precious equipment. It become an ideal power source with 100% protection against unexpected AC power problems.

MASTER SERIES (1P/1P) - 2-IN-1 RACK/TOWER



- True Double-Conversion Online UPS
- Rack or Tower design
- Wide input voltage range (110~300VAC)
- Input Power Factor correction 0.99
- Output Power Factor 0.90
- 50/60Hz frequency converter mode
- Hot-Swappable battery design
- Programmable power management outlets
- Emergency Power Off (EPO) function
- ECO Mode Operation for energy saving
- General Compatible
- Charger capacity expansion to 8A for long-run models
- SNMP+USB+RS232 multiple communications
- Smart battery charger design for optimized battery performance
- Selectable output voltage via LCD panel
- Accessories: External maintenance bypass switch * SNMP card

FULL SPECIFICATIONS

MODELS			PRO801 (RS/RL)	PRO801S (RS/RL)	PRO802 (RS/RL)	PRO803 (RS/RL)	PRO806 (RS/RL)	PRO810 (RS/RL)
Capacity	Volt-Amp		1000 VA	1500 VA	2000 VA	3000 VA	6000 VA	10000 VA
	Watt	Standard Model	900 W	1350 W	1800 W	2700 W	5400 W	9000 W
		Long-Run Model	800 W	1200 W	1500 W	2400 W	5400 W	9000 W
Phase			Single Phase In / Single Phase Out (with ground)					
INPUT								
Voltage Range	Low Line Transfer		80/70/60/55VAC ±5% or 160/140/120/110VAC ±5% #1				176 VAC ±3% @ 100% Load or 110 VAC ±3% @ 50% Load	
	Low Line Comeback		85/75/65/60VAC ±5% or 170/150/130/120VAC ±5%				186 VAC ±3% @ 100% Load or 120 VAC ±3% @ 50% Load	
	High Line Transfer		150VAC ±5% or 300VAC ±5%				300VAC ±3%	
	High Line Comeback		140VAC ±5% or 290VAC ±5%				290VAC ±3%	
Frequency Range			40~70Hz				46~54Hz or 56Hz~64Hz	
Power Factor Correction			≥ 0.99 @ nominal voltage (100%load)				≥0.99 @ 100% Load	
OUTPUT								
Output Voltage			110/115/120/127VAC or 208/220/230/240VAC				208/220/230/240VAC	
AC Voltage Regulation (Battery Mode)			±1%				±1%	
Frequency Range	Synchronized Range		47~53Hz or 57~63Hz				46~54Hz or 56~64Hz	
	Battery Mode		50Hz ±0.2Hz or 60Hz ±0.2Hz				50Hz ±0.1Hz or 60Hz ±0.1Hz	
Current Crest Ratio			5:1 (max.)				3:1	
Harmonic Distortion	Linear Load		≤2% THD				≤2% THD	
	Non-Linear Load		≤8% THD				≤6% THD	
Transfer Time	AC Mode to Battery Mode		Zero					
	Inverter to Bypass		Zero					
Waveform (Battery Mode)			Pure Sinewave					
EFFICIENCY								
AC Mode			86%		88%		90%	
Battery Mode			83%		85%		88%	
BATTERY								
Standard Model	Battery Type		12V9AH				12V7AH	12V9AH
	Numbers		2	3	4	6	20	20
	Typical Recharge Time		4 hours recover to 90% capacity				9 hours recover to 90% capacity	
	Charging Current (max.)		1A				1A	
	Charging Voltage		27.4VDC ±1%	41.1VDC ±1%	54.7VDC ±1%	82.1VDC ±1%	273VDC ±1%	
Long-Run Model	Battery Type		Depending on Applications					
	Numbers		2	3	4	6	20	
	Charging Current (max.)		4A/8A				4A	
	Charging Voltage		27.4VDC ±1%	41.1VDC ±1%	54.7VDC ±1%	82.1VDC ±1%	273VDC ±1%	
INDICATORS								
LCD Panel			UPS Status, Load Level, Battery Level, Input/Output Voltage, Discharge Timer, Fault Conditions					
ALARM								
Battery Mode			Sounding every 4 seconds					
Low Battery			Sounding every seconds					
Overload			Sounding twice every seconds					
Fault			Continuously sounding					
PHYSICAL								
Standard Model	Dimension (mm) D×W×H		380×438×88 [2U]	480×438×88 [2U]	480×438×88 [2U]	600×438×88 [2U]	UPS Unit: 580×438×133 [3U] Battery Pack: 580×438×133 [3U]	UPS Unit : 668×438×133 [3U] Battery Pack: 580×438×133 [3U]
	Net Weight (kgs)		12.9	17.6	20.6	28	UPS Unit : 17 Battery Pack : 57	UPS Unit : 20 Battery Pack : 63
Long-Run Model	Dimension (mm) D×W×H		380×438×88 [2U]	480×438×88 [2U]	480×438×88 [2U]	600×438×88 [2U]	580×438×133 [3U]	668×438×133 [3U]
	Net Weight (kgs)		8.6	10.7	11.3	13.8	17	20
ENVIRONMENT								
Humidity			20-90% Relative Humidity @ 0~40°C (Non-Condensing)					
Noise Level			Less than 50dB @ 1 Meter					
Regulations			EN 62040-1:2008, EN 62040-2:2006, EN 61000-4-2:2009					
MANAGEMENT								
Smart RS232 / USB			Support Windows® 2000/2003/XP/Vista/2008, Windows® 7, Linux, Unix and MAC					

#1: Based on load percentage 100%~80%/ 80%~70%/ 70%~60%/ 60%~0%.
 Indications of Models: L means Long-run model; S means Standard model; I means Isolation Transformer available (optional).
 All specifications, designs and contents are subjected to changes without prior notice.

APPLICATION



REAR PANEL

- 1 Programmable outlets:
Connect to non-critical loads.
- 2 Output receptacles:
Connect to mission-critical loads.
- 3 AC input
- 4 Input circuit breaker
- 5 Network/Fax/Modem surge protection
- 6 Emergency power off function connector (EPO)
- 7 USB communication port
- 8 RS-232 communication port
- 9 SNMP intelligent slot
- 10 External battery connector
(only available for long-run models)
- 11 Input terminal
- 12 Fan
- 13 Parallel port (only available for parallel model)
- 14 External maintenance by-pass switch connection
- 15 Output Terminal
- 16 Ground



PRO806RS/RL
PRO810RS/RL



PRO801RS/PRO8015RS/PRO802RS



PRO801RL/PRO8015RL/PRO802RL



PRO803RS



PRO803RL

BATTERY PACK



Capacity	1K	1.5K	2K	3K	6K	10K
Battery Type	12V9AH				12V7AH	12V9AH
Battery Number	8 pcs	6 pcs	8 pcs	12 pcs	20 pcs	
Dimension (DxWxH)	480×438×88			600×438×88	580×438×133	
Net Weight (kgs)	31.1	29.1	31.1	43.3	57	63

OPTION

- AS-400 Card for external alarm signal.
- SNMP Card for data communication via network connection
- MODBUS Card for communication
- Universal Rackmount Slider for installation in rack cabinets
- External PDU & Maintenance Bypass Switch (suitable for UPS up to 3KVA only)

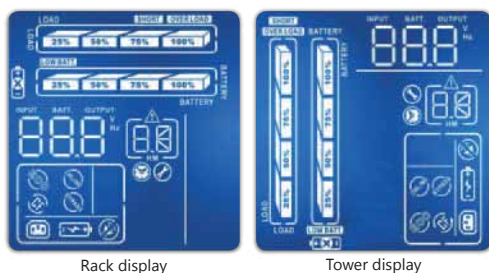


► True double-conversion online UPS

A true double conversion UPS will provide clean, high level quality power to fully protect mission-critical devices such as sensitive networks, small computer centers, servers, telecom applications, as well as for industrial applications.

► User-friendly and easy-shift LCD display

The front panel digital display can be easily shifted through LCD setting to suit the installation format, vertically stand or flat wall mount.



Rack display

Tower display

► Rack/Tower design

Master (1P/1P) - 2-in-1 Rack/Tower Series is designed in true 2U universal-mount case. It can be easily installed as floor-standing tower or in 19-inch rack-mount bracket.



19" Rack-Mounting



Floor-Standing Tower

► Higher output crest ratio perfect for generator and compressor

Compared to general online UPS, Master (1P/1P) - 2-in-1 Rack/Tower Series provide higher current crest ratio as 5:1. It can support not only precious IT equipment, but also compressors and motor-type devices.

► Output voltage regulation < 1%

Master (1P/1P) - 2-in-1 Rack/Tower Series offers better output voltage regulation (+/-1%), which ensures higher compatibility with even the most sensitive power supplies.

► Output power factor 0.9

Master (1P/1P) - 2-in-1 Rack/Tower Series is a high-density UPS with output power factor 0.9 to provide higher performance and efficiency to critical applications.

► Programmable power management outlets

With programmable power management outlets, users can easily and independently control load segments. During power failure, this feature enables users to extend battery time to mission critical devices by shutting down the non-critical devices.



Programmable Outlets (P1)
- connect to non-critical devices

► ECO and advanced ECO mode for energy saving

It allows UPS to operate in high efficiency up to 97% in energy saving ECO mode and even up to 98%. In this operation mode, load is supplied by the mains. In the event of a mains failure, the inverter takes over the load and provides supply continuity to the connected systems.

► Emergency Power Off Function (EPO)

This feature can secure the personnel and equipment in case of fires or other emergencies.

► Hot-swappable battery design

This design ensures clean and uninterruptible power to protected equipment during battery replacement.



► Long-run models available

To provide longer backup time, we also offer long-run models. If additional runtime is required, matching external battery units is available.

MASTER SERIES (3P/1P) - TOWER



- True Double-Conversion Online UPS
- DSP technology guarantees high performance
- Output Power Factor 0.80
- Input Power Factor Correction 0.99
- Wide input voltage range
- Active power factor correction in all phases
- Build-in phase auto apt function simplifies wire installation
- 50/60Hz frequency converter mode
- Programmable power management outlets
- Emergency Power Off (EPO) function
- ECO Mode Operation for energy saving
- Charger capacity expansion to 8A for long-run models
- SNMP+USB+RS232 multiple communications
- 3-stage extendable charging design for optimized battery performance
- Adjustable battery numbers
- Maintenance bypass available
- Optional N+X parallel redundancy
- Optional isolation transformer available

FULL SPECIFICATIONS

MODELS		PRO83110S		PRO831110 (S/L/LI)		PRO83115 (S/L/LI)		PRO83120S		PRO831210 (L/LI)		
Capacity		Volt-Amp		10000 VA		15000 VA		20000 VA				
		Watt		8000 W		12000 W		16000 W				
Phase		3 Phase In / 1 Phase Out										
Isolation Transformer		Optional										
INPUT												
Voltage Range	Low Line Transfer						176VAC (Phase Voltage) @ 100% Load 110VAC (Phase Voltage) @ 50% Load					
	Low Line Comeback						186VAC (Phase Voltage) @ 100% Load 120VAC (Phase Voltage) @ 50% Load					
	High Line Transfer						276VAC (Phase Voltage) @ 100% Load 300VAC (Phase Voltage) @ 50% Load					
	High Line Comeback						266VAC (Phase Voltage) @ 100% Load 290VAC (Phase Voltage) @ 50% Load					
Frequency Range		45~54Hz or 56~64Hz										
Power Factor Correction		≥ 0.99 @ 100% Load										
OUTPUT												
Output AC Voltage		208/220/230/240VAC										
AC Voltage Regulation (Battery Mode)		±1%										
Frequency Range	Synchronized Range		46~54Hz or 56~64Hz									
	Battery Mode		50Hz ±0.1Hz or 60Hz ±0.1Hz									
Current Crest Ratio		3:1										
Harmonic Distortion	Linear Load		≤2% THD									
	Non-Linear Load		≤5% THD	≤6% THD	≤5% THD			≤7% THD				
Transfer Time	AC Mode to Battery Mode		Zero									
	Inverter to Bypass		Zero									
Waveform (Battery Mode)		Pure Sinewave										
Power Factor		0.8										
EFFICIENCY												
AC Mode		89%		85%		89%			87%			
Battery Mode		86%		83%		88%		87%		83%		
BATTERY												
Standard Model	Battery Type		12V9AH									
	Numbers		20 (18-20 adjustable)				20 x 2 strings (18-20pcs adjustable)				NA	
	Typical Recharge Time		9 hours recover to 90%capacity									
	Charging Current (max.)		1A				2A					
	Charging Voltage		13.65DC ±1% per Battery									
Long-Run Model	Battery Type		Depending on the capacity of external batteries.									
	Numbers											
	Charging Current (max.)		4A				8A					
	Charging Voltage		13.65DC ±1% per Battery									
INDICATORS												
LCD Panel		UPS Status, Load Level, Battery Level, Input/Output Voltage, Discharge Timer, Fault Conditions										
ALARM												
Battery Mode		Sounding every 4 seconds										
Low Battery		Sounding every seconds										
Overload		Sounding twice every seconds										
Fault		Continuously sounding										
PHYSICAL												
Standard Model	Dimension (mm) D×W×H		592×250×576		592×250×826		815×250×826			NA		
	Net Weight (kgs)		83		144		164					
Long-Run Model	Dimension (mm) D×W×H		592×250×576		592×250×826		592×250×826			815×250×826		
	Net Weight (kgs)		28		91		37			144		
ENVIRONMENT												
Humidity		0-95% Relative Humidity @ 0~40°C (Non-Condensing)										
Noise Level		Less than 58dB @ 1 Meter								Less than 60dB @ 1 Meter		
Protection		IP20										
Regulations		EN 62040-2:2006, EN61000-2-2:2002, EN 61000-4										
MANAGEMENT												
Smart RS232 / USB		Support Windows® 2000/2003/XP/Vista/2008, Windows® 7, Linux, Unix and MAC										

APPLICATION



Local Area Network (LAN)



Data Centre



Electro-Medical Device



Storage PLCS



Telecommunication Devices



Emergency Alarm Devices

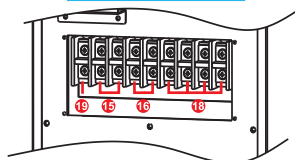


E-Business (Server Farms, ISP/ASP/POP)

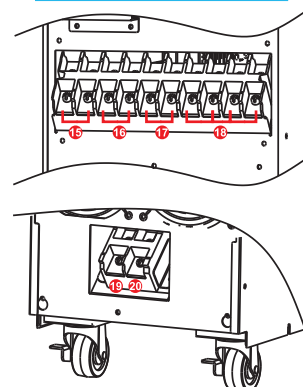
REAR PANEL

- 1 RS-232 communication port
- 2 USB communication port
- 3 Emergency power off function connector (EPO connector)
- 4 Share current port (only available for parallel model)
- 5 Parallel port (only available for parallel model)
- 6 Intelligent slot
- 7 Charger fan
- 8 Power stage fan
- 9 Maintenance bypass switch
- 10 Input circuit breaker
- 11 Output circuit breaker for receptacles
- 12 Output receptacles: connect to mission-critical loads.
- 13 Input/Output terminal
- 14 External battery connector (only available for 10KL)
- 15 Output terminal 1
- 16 Output terminal 2
- 17 External battery terminal (only available for Long-run model)
- 18 Utility input terminal
- 19 Non-isolated Neutral terminal
- 20 Grounding terminal

For 10K model:



For 15K & 20K model:



PRO83110S



PRO83110L



PRO83115S
PRO83120S



PRO83115L
PRO83120L

OPTION

- AS-400 Card for external alarm signal.
- SNMP Card for data communication via network connection
- MODBUS Card for communication
- Output Isolation Transformer



MASTER SERIES (3P/1P) - RACKMOUNT



- True double-conversion
- DSP technology guarantees high performance
- Output Power Factor 0.8
- Wide input voltage range
- Active power factor correction in all phases
- 50Hz/60Hz frequency converter mode
- Eco mode operation for energy saving (ECO)
- Emergency power off function (EPO)
- Generator compatible
- Charger capacity expansion to 8A for long-run models
- SNMP+USB+RS-232 multiple communications
- 3-stage extendable charging design for optimized battery performance
- Adjustable battery numbers
- Optional N+X parallel redundancy

FULL SPECIFICATIONS

MODELS		PRO83110 (RS/RL)		PRO83120 (RS/RL)	
Capacity	Volt-Amp	10000 VA		20000 VA	
	Watt	8000 W		16000 W	
Phase		3 Phase In / 1 Phase Out			
INPUT					
Voltage Range	Low Line Transfer	176VAC (Phase Voltage) ±3% @ 100% Load 110VAC (Phase Voltage) ±3% @ 50% Load			
	Low Line Comeback	186VAC (Phase Voltage) ±3% @ 100% Load 120VAC (Phase Voltage) ±3% @ 50% Load			
	High Line Transfer	300VAC (Phase Voltage) ±3%			
	High Line Comeback	290VAC (Phase Voltage) ±3%			
Frequency Range		46~54Hz or 56~64Hz			
Power Factor		≥ 0.99 @ 100% Load			
THDi		< 6% @ 100% Load			
OUTPUT					
Output AC Voltage		208/220/230/240VAC			
AC Voltage Regulation (Battery Mode)		±1%			
Frequency Range	Synchronized Range	46~54Hz or 56~64Hz			
	Battery Mode	50Hz ±0.1Hz or 60Hz ±0.1Hz			
Current Crest Ratio		3:1			
Harmonic Distortion	Linear Load	≤2% THD			
	Non-Linear Load	≤5% THD			
Transfer Time	AC Mode to Battery Mode	Zero			
	Inverter to Bypass	Zero			
Waveform (Battery Mode)		Pure Sinewave			
Power Factor		0.8			
EFFICIENCY					
AC Mode		89%			
Battery Mode		86%		87%	
BATTERY					
Standard Model	Battery Type	12V9AH			
	Numbers	20pcs (18-20pcs adjustable)		20pcs × 2 strings (18-20pcs adjustable)	
	Typical Recharge Time	9 hours recover to 90%capacity			
	Charging Current (max.)	1A			
	Charging Voltage	13.65V ±1% per battery			
Long-Run Model	Battery Type	Depending on the capacity of external batteries.			
	Numbers				
	Charging Current (max.)	2A		4A	
	Charging Voltage	13.65V ±1% per battery			
INDICATORS					
LCD Panel		UPS Status, Load Level, Battery Level, Input/Output Voltage, Discharge Timer, Fault Conditions			
ALARM					
Battery Mode		Sounding every 4 seconds			
Low Battery		Sounding every seconds			
Overload		Sounding twice every seconds			
Fault		Continuously sounding			
PHYSICAL					
Standard Model	Dimension (mm) D×W×H	UPS Unit : 668 x 438 x 133 (3U) Battery Pack : 580 x 438 x 133 (3U)		UPS Unit : 668 x 438 x 226 (6U) 2 x Battery Pack : 580 x 438 x 133 (3U)	
	Net Weight (kgs)	UPS Unit : 23 Battery Pack : 63		UPS Unit : 38 Battery Pack : 2 x 63	
Long-Run Model	Dimension (mm) D×W×H	668×438×133		668×438×226 (6U)	
	Net Weight (kgs)	23		38	
ENVIRONMENT					
Humidity		0-95% Relative Humidity @ 0~40°C (Non-Condensing)			
Noise Level		Less than 58dB @ 1 Meter		Less than 60dB @ 1 Meter	
Regulations		EN 62040-2:2006, EN61000-2-2:2002, EN 61000-4			
MANAGEMENT					
Smart RS232 / USB		Support Windows® 2000/2003/XP/Vista/2008, Windows® 7, Linux, Unix and MAC			

APPLICATION



Local Area
Network (LAN)



Data
Centre



19" Rack Mount



Storage
PLCS



Telecommunication
Devices



Emergency
Alarm Devices

REAR PANEL

- 1 RS-232 communication port
- 2 USB communication port
- 3 Emergency power off function connector (EPO connector)
- 4 Parallel port (only available for parallel model)
- 5 Intelligent slot
- 6 Fan
- 7 External maintenance by-pass switch connection
- 8 Input circuit breaker
- 9 Input/Output terminal
- 10 Output terminal
- 11 Battery terminal
- 12 Input terminal



PRO83110RS/RL



PRO83120RS/RL

OPTION

- AS-400 Card for external alarm signal.
- SNMP Card for data communication via network connection
- MODBUS Card for communication
- Universal Rackmount Slider for installation in rack cabinets

MASTER SERIES (3P/3P) - TOWER



- True double-conversion
- DSP technology guarantees high performance
- Output Power Factor 0.8
- Wide input voltage range
- Active power factor correction in all phases
- 50Hz/60Hz frequency converter mode
- Eco mode operation for energy saving (ECO)
- Accepts dual power inputs
- Emergency power off function (EPO)
- Generator compatible
- SNMP+USB+RS-232 multiple communications
- 3-stage extendable charging design for optimized battery performance
- Adjustable battery numbers
- Maintenance bypass available
- Optional N+X parallel redundancy
- Optional isolation transformer offers full isolation and complete common mode noise

FULL SPECIFICATIONS

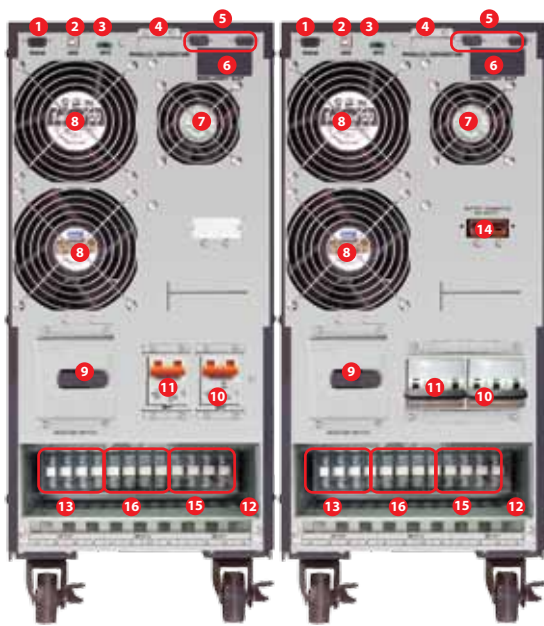
MODELS		PRO83310 (S/L/LI)		PRO83320 (S/L/LI)	
Capacity	Volt-Amp	10000 VA		20000 VA	
	Watt	8000 W		16000 W	
Phase		3 Phase In / 3 Phase Out			
Isolation Transformer		Optional			
INPUT					
Voltage Range	Low Line Transfer	176VAC (Phase Voltage) ±3% @ 100% Load 110VAC (Phase Voltage) ±3% @ 50% Load			
	Low Line Comeback	186VAC (Phase Voltage) ±3% @ 100% Load 120VAC (Phase Voltage) ±3% @ 50% Load			
	High Line Transfer	300VAC (Phase Voltage) ±3%			
	High Line Comeback	290VAC (Phase Voltage) ±3%			
Frequency Range		46~54Hz or 56~64Hz			
Power Factor		≥ 0.99 @ 100% Load			
THDi		< 6% @ 100% Load			
OUTPUT					
Output Voltage		3 × 400v (3Ph+N)			
AC Voltage Regulation (Battery Mode)		±1%			
Frequency Range	Synchronized Range	46~54Hz or 56~64Hz			
	Battery Mode	50Hz ±0.1Hz or 60Hz ±0.1Hz			
Current Crest Ratio		3:1 (Max.)			
Harmonic Distortion	Linear Load	≤2% THD			
	Non-Linear Load	≤5% THD			
Transfer Time	AC Mode to Battery Mode	Zero			
	Inverter to Bypass	Zero			
Waveform (Battery Mode)		Pure Sinewave			
Power Factor		0.8			
EFFICIENCY					
AC Mode		89%			
Battery Mode		86%		87%	
BATTERY					
Standard Model	Battery Type	12V9AH			
	Numbers	20pcs (18-20pcs adjustable)		20pcs × 2 strings (18-20pcs adjustable)	
	Typical Recharge Time	9 hours recover to 90%capacity			
	Charging Current (max.)	1A		2A	
Long-Run Model	Charging Voltage	13.65DC ±1% per Battery			
	Battery Type	Depending on the capacity of external batteries.			
	Numbers				
	Charging Current (max.)	4A		8A	
	Charging Voltage	13.65DC ±1% per Battery			
INDICATORS					
LCD Panel		UPS Status, Load Level, Battery Level, Input/Output Voltage, Discharge Timer, Fault Conditions			
ALARM					
Battery Mode		Sounding every 4 seconds			
Low Battery		Sounding every seconds			
Overload		Sounding twice every seconds			
Fault		Continuously sounding			
PHYSICAL					
Standard Model	Dimension (mm) D×W×H	592×250×576		815×250×826	
	Net Weight (kgs)	83		164	
Long-Run Model	Dimension (mm) D×W×H	592×250×576		592×250×576	
	Net Weight (kgs)	28		40	
ENVIRONMENT					
Humidity		0-95% Relative Humidity @ 0~40°C (Non-Condensing)			
Noise Level		Less than 58dB @ 1 Meter		Less than 60dB @ 1 Meter	
Protection		IP20			
Regulations		EN 62040-2:2006, EN61000-2-2:2002, EN 61000-4			
MANAGEMENT					
Smart RS232 / USB		Support Windows® 2000/2003/XP/Vista/2008, Windows® 7, Linux, Unix and MAC			

APPLICATION



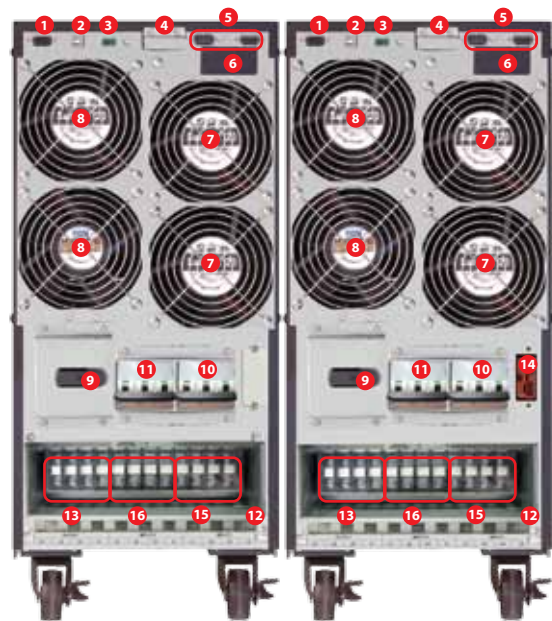
REAR PANEL

- 1 RS-232 communication port
- 2 USB communication port
- 3 Emergency power off function connector (EPO connector)
- 4 Share current port (only available for parallel model)
- 5 Parallel port (only available for parallel model)
- 6 Intelligent slot
- 7 Charger fan
- 8 Power stage fan
- 9 Maintenance bypass switch
- 10 Input circuit breaker 1
- 11 Input circuit breaker 2
- 12 Input/Output terminal
- 13 Output terminal
- 14 External battery terminal (only available for Long-run model)
- 15 Utility input terminal 1
- 16 Utility input terminal 2



PRO83310(S)

PRO83310(L)



PRO83320(S)

PRO83320(L)

OPTION

- AS-400 Card for external alarm signal.
- SNMP Card for data communication via network connection
- MODBUS Card for communication
- Output Isolation Transformer

POWER SERIES (3P/3P)



- Online double conversion technology with DSP control
- Advanced control with Adaptive Feed Forward Cancellation (AFC) technology for very low harmonic distortion
- Very low input current distortion (THDi < 1%)
- Input power factor 0.99 at 10%load
- Output efficiency up to 95%
- Space-saving compact design
- Front access makes maintenance and replacement easily
- Highly flexibility in single phase / three-phase set-ups
- Control designed to withstand all kinds of loads
- Variety of communication options available
- Over 60% materials recyclable
- Optional N+X parallel redundancy
- Remaining backup time calculation

FULL SPECIFICATIONS

MODELS		PRO73315 (S/SI)	PRO73320 (S/SI)	PRO73330 (S/SI)	PRO73340 (S/SI)	PRO73360 (S/SI)	PRO73380 (S/SI)
Capacity	Volt-Amp	15KVA	20KVA	30KVA	40KVA	60KVA	80KVA
	Watt	12KW	16KW	24KW	32KW	48KW	64KW
Output Power Factor		0.8					
Phase		3 Phase In / 3 Phase Out					
Isolation Transformer		Optional					
INPUT							
Nominal Voltage		3×400V (3Ph + N)					
Acceptable Voltage Range		+15% or -20%					
Frequency		50/60Hz ±5%					
Total Harmonic Distortion (THDi)		<1.5%@ 100% Load <2.5%@ 50% Load <6.0%@ 10% Load		<1.0%@ 100% Load <2.0%@ 50% Load <5.0%@ 10% Load			
Current Limitation		High Overload: PFC Limit (discharging batteries)					
Power Factor		1.0					
INVERTER							
Nominal Voltage		3×400V (3Ph + N)					
Precision		Stationary: ±1% Transitory: ±2% (Load Variations 100%-0%-100%)					
Frequency		50/60Hz Synchronised ±4%					
Maximum Synchronisation Speed		±1Hz/s					
Waveform		Pure Sinewave					
Total Harmonic Distortion (THDv)	Linear Load	< 0.5%					
	Non-Linear Load	< 1.5%					
Phase Displacement	Balanced Load	120° ±1%					
	Imbalanced Load 50%	120° ±2%					
Dynamic Recovery Time		10ms. @ 98%of the static value					
Admissible Overload		125%for 10min., 150%for 60sec.					
Admissible Crest Factor		3.4:1		3.2:1			
Admissible Power Factor		0.1 inductive to 0.1 capacitive					
Imbalance Output Voltage @ 100%Unbalanced Load		< 1%					
Current Limit		High Overload, Short-circuit: RMS Voltage Limit					
STATIC BYPASS							
Type		Solid State					
Voltage		3×400V (3Ph + N)					
Frequency		50/60Hz					
Activation Criterion		Microprocessor Control					
Transfer Time		Zero					
Admissible Overload		400%for 10sec.					
Transfer to Bypass		Immediate, for overload above 150%					
Retransfer		Automatic after alarm clear					
MANUAL BYPASS (MAINTENANCE)							
Type		Without Interruption					
Voltage		3×400V (3Ph + N)					
Frequency		50/60Hz					
Overall Efficiency (Line Mode)		90.5%	91.0%	92.0%	92.5%	93.05%	94.0%
ENVIRONMENT							
Humidity		0-95% Relative Humidity @ 0-40°C (Non-Condensing)					
Protection		IP20					
Regulations		EN 62040-2:2006, EN 61000-2-2:2002, EN61000-4-2,3,4,5,6,8					
PHYSICAL							
Dimension (mm) D×W×H		700×450×1100		980×650×1320			
Net Weight (Without Batteries) (kgs)		120		190		200	300
Build-in Batteries Type (2×31)		12V 7AH	12V 7.2AH	12V 12AH	12V 18AH	NA	NA
Net Weight (With Built-in Batteries) (kgs)		250	250	530		NA	NA

If the UPS is installed or used in a place where the altitude is above than 1000m, the output power must be derated one percent per 100m.
 Indications of Models: L means Long-run model; S means Standard model; I means Isolation Transformer available (optional).
 All specifications, designs and contents are subjected to changes without prior notice.

► **The Most Versatile Solution for Power Protection**

Power Series, applied with state-of-the-art PWM-transformerless technology, can easily adapt to all kinds of diverse and complicated loads, such as the non-linear systems (IT systems), strongly inductive or capacitive loads, discharge lamps, and induction motors. Ranging from 15K-80KVA, Power Series is designed in terms of criteria of maximum efficiency and energy savings with highly compact format. It makes installation and operation easily and eco-environmentally. Each unit also has a wide range of communication possibilities and a large variety of options to fill out customers' diverse inquiries. To facilitate expansion easily, this unit can be set up in parallel-redundant systems without any need for additional hardware in the near future

► **Online double conversion technology with DSP control**

Power Series is applied online double conversion technology to effectively insulate against network disturbances and enable higher load uptime. A Digital Signal Processor (DSP) control provides an improved solution with high performance.

► **Advanced control with Adaptive Feed Forward Cancellation (AFC) technology for very low harmonic distortion**

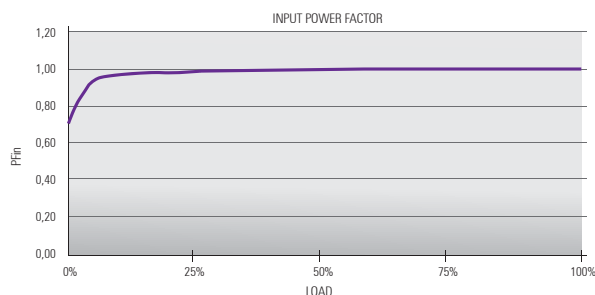
By cancelling input current and output voltage harmonics, the harmful effects of harmonic injection into the power network is eliminated and it will enhance load integrity.

► **Very low input current distortion (THDi < 1%)**

AFC cells are used to achieve extremely low distortion values. Low input current distortion rate THDi < 1% at full load and also THDi < 5% with very small load (10% of load). This will avoid the distortion of the electrical network upstream of the UPS, resulting in savings from the optimal use of the cables and protection devices in the electrical network.

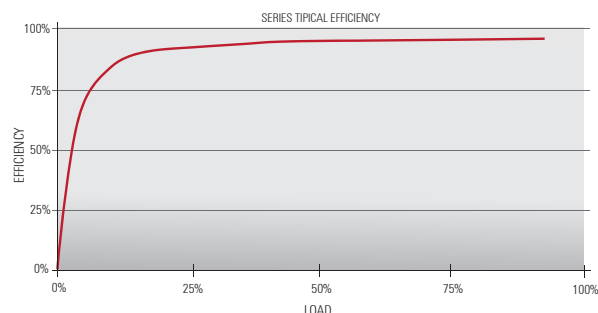
► **Input power factor 0.99 at 10% load**

Lower power losses would result in reduced consumption, lower operation and maintenance costs.



► **Output efficiency up to 95%**

Applied with DSP controller and the forth generation IGBT transistors, the UPS can achieve high efficiency of up to 95%. It will save consumed energy due to lower heat losses and make a longer lifespan for the critical components of the unit.



► **Space-saving compact design**

The use of transformerless technology allows a considerable reduction of the weight and volume of the units.

► **Front access makes maintenance and replacement easy**

An important consideration has been given to allow generous access to the unit's electronic cards and power components. All the boards are accessible by front panel for easily maintenance and replacement.



► Highly flexibility in single phase/ three-phase set-ups

The UPS is a unit with high flexibility in adapting inputs and outputs, and may easily be set up depending on the requirements of the facility.

- Three-phase input / Three-phase output (III/III)
- Three-phase input / Single phase output (III/I)
- Single phase input / Single phase output (I/I)
- Single phase input / Three-phase output (I/III)

► Variety of communications and options available

The UPS has provided the following standard communication selections:

- Relay interface
- RS-232/485 port
- 1×SNMP slot
- Modbus RTU / SEC protocol
- 2×connectors for parallel connection

► Control designed to withstand all kinds of loads

In Power Series, the control is designed to be able to withstand all kinds of loads: resistive, capacitive, non-linear, discharge lamps, induction motors, speed drivers, etc. It makes the UPS tremendously versatile and flexible in supplying power to different types of electronics. To make it simple to adapt the UPS for different environment, there are a large number of parameters that can be programmed locally or remotely.

► Over 60%materials recyclable

The UPS uses more than 60%recyclable materials for being more respectful of the environment.



► Remaining backup time calculation

By using powerful algorithms, an estimated remaining backup time can be calculated and help users for further arrangement in the event of a prolonged power outage.



APPLICATION



Local Area Network (LAN)



Data Centre



Electro-Medical Device



Storage PLCS



Telecommunication Devices



Emergency Alarm Devices



E-Business (Server Farms, ISP/ASP/POP)

POWER SERIES (3P/3P) - PWR1000



- Optimization Topology of power supply systems
- Sharing battery in parallel mode
- Free setting of charging current
- Intelligent monitoring function
- Small and medium-sized distribution system
- Maintenance bypass
- Multi-function UPS
- EPO function
- Three phase in, three phases out
- Digital control
- 19 inch standard cabinet and 5 inch LCD screen
- Modularization design (each module is 15KVA)
- Max power density in UPS Field
- N + X parallel redundancy
- Flexibility of parallel redundancy setting
- Parallel redundancy function of control systems

FULL SPECIFICATIONS

MODELS		15-120KVA/12-96W
Capacity	Volt-Amp	15~120KVA
	Watt	12~96KW
Phase		3-Phase In / 3-Phase Out
Isolation Transformer		NA
INPUT		
Connection		3 Phases, 4 Wires + GND
Voltage Range		240~520VAC
Frequency Range		40~70Hz
Power Factor		> 0.99
Bypass Voltage Range		380VAC ±15%
OUTPUT		
Connection		3 Phases, 4 Wires + GND
Rated Voltage		380VAC ±2%
Frequency		Same as Input (AC mode), when AC frequency over Step ±8%, output frequency 50×(1±0.5%)Hz 50×(1±0.5%)Hz (Battery Mode)
Power Factor		0.8
Overload Capability		110% < Load < 130%, after 10mins, transfer to bypass 130% < Load < 150%, after 1mins, transfer to bypass Load > 150%, only 0.5secs, transfer to bypass
Nominal External Battery Voltage		±240VDC (every group has forty batteries in series) Connection, fetch out midline among them
Single Module Power		15KVA / 12KW
Output Power		15KVA×Modules / 12KW×Modules
Generator Compatible		Yes
Communication Interface		RS232, RS485, Intelligent Slot
ENVIRONMENT		
Noise Level		<60dB
Temperature		0°C~40°C
Humidity		0%~ 93% (Non-Condensing)
Storage Temperature		-25°C~55°C
PHYSICAL		
Net Weight (kgs)	RP Series UPS Modules	31
	RP Series UPS Rack	250
Dimension (mm) D×W×H	RP Series UPS Modules	493×709×132
	RP Series UPS Rack	600×1022×2100

Accord with International EMC safety regulate:

(1) EMS - IEC61000-4-2 (ESD) : Electrostatic Discharge, IEC61000-4-2 (RS) : Radiated Immunity, IEC61000-4-2 (EFT) : Electrical Fast Transients cc, IEC61000-4-2 (Surge) : Surge Immunity

(2) EMI - In IEC62040-2, which about UPS EMC output require >25A.

All specifications, designs and contents are subjected to changes without prior notice.

APPLICATION



Local Area
Network (LAN)



Data
Centre



Electro-Medical
Device



Storage
PLCS



Telecommunication
Devices



Emergency
Alarm Devices



E-Business
(Server Farms,
ISP/ASP/POP)

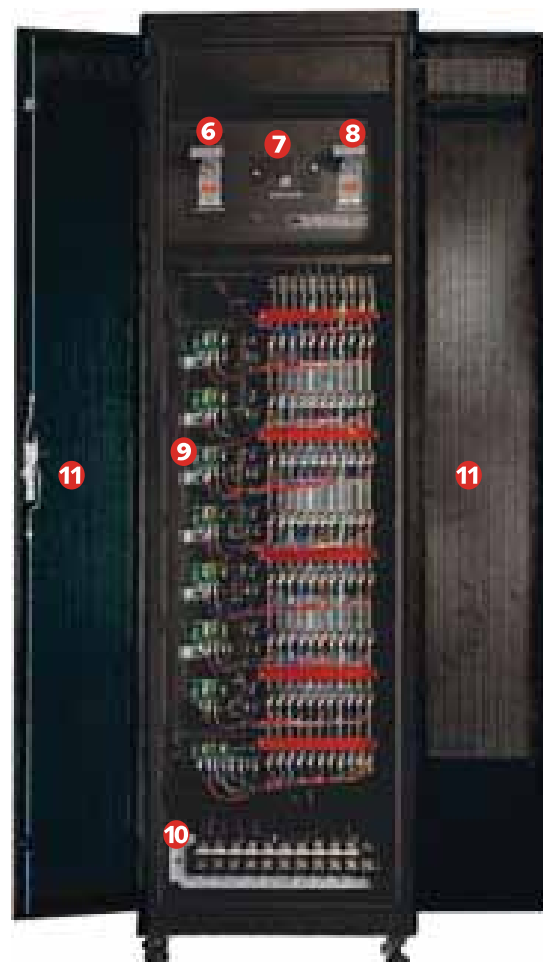
REAR PANEL

- 1 LCD
- 2 User Interface
- 3 15KVA Module
- 4 Optional PDU
- 5 Front Door
- 6 Input Breaker
- 7 Maintenance Breaker
- 8 Output Breaker
- 9 Circuit & Wiring
- 10 Terminal Block
- 11 Rear Door

Front Panel



Rear Panel



Online

OPTION

- SNMP Card for data communication via network connection
- Remote monitoring LCD

POWER SERIES (3P/3P) - PWR7000



- Advanced IGBT rectifier with low THDi and high PF
- Wide input voltage range and frequency tolerance
- Load bus synchronization (LBS) function
- Flexibility of configurable battery quantity
- Front accessible module design for ease of maintenance
- Low audible noise and low output voltage THD
- Parallel redundancy
- ECO mode
- Back-feed protection
- Cold start
- LCD and LED user interface with audible alarm function
- Surge, short circuit and overload protection

FULL SPECIFICATIONS

MODELS		PWR7020	PWR7030	PWR7040	PWR7060
Capacity	Volt-Amp	20KVA	30KVA	40KVA	60KVA
	Watt	16KW	24KW	32KW	48KW
Phase		3-Phase In / 3-Phase Out			
Isolation Transformer		NA			
INPUT					
Voltage Range		208~478 ±5VAC			
Frequency Range		46~54Hz ±0.5Hz or 56~64Hz ±0.5Hz			
Total Harmonic Distortion (THDi)		< 3%			
Power Factor		> 0.99			
OUTPUT					
Voltage		380/400/415V			
Frequency		50/60Hz ±0.5Hz			
Waveform		Sinewave			
Current Crest Ratio		3:1			
Total Harmonic Distortion (THD)	Linear Load	< 1%			
	Non-Linear Load	< 5%			
Overload Capability		110%for 60mins 125%for 10mins 150%for 1min			
BATTERY					
Type		Sealed lead acid maintenance free			
Charging Current		15A Max.			
Configurable Battery		32/34/36/38/40			
BYPASS					
Type		Static bypass and manual maintenance bypass			
Input Phase		3 phase 4 wire and ground			
Input Voltage Range		208~478V ±5V			
Overload Capacity		< 125%keep normal 125%~170%for 10mins			
SYSTEM					
Remote Signaling		Dry Contact			
Communication Interface		RS232 / RS485 / RJ11 / SNMP			
Running Temperature		0~40°C			
Relative Humidity		0%~95% (Non-Condensing)			
Attitude		1000m output nominal power			
Noise at 1mm		< 56dB			
Inverter Efficiency		95%			
Degree of Protection		IP20			
PHYSICAL					
Weight (kgs)	Gross Weight	230	235	245	290
	Net Weight	210	215	225	270
Dimension (mm) D×W×H	Unit	696×603×1194		696×603×1796	
	Packaging	830×703×1380		830×703×1980	

APPLICATION



Local Area
Network (LAN)



Data
Centre



Electro-Medical
Device



Storage
PLCS



Telecommunication
Devices



Emergency
Alarm Devices



E-Business
(Server Farms,
ISP/ASP/POP)

REAR PANEL

- 1 User Interface
- 2 Inverter Module
- 3 Inverter Module
- 4 PFC Module
- 5 PFC Module
- 6 Main Breaker
- 7 Bypass Breaker
- 8 Maintenance Breaker
- 9 Output Breaker
- 10 Front Door



Online

OPTION

- SNMP Card for data communication via network connection

PRO SERIES



- 650VA/850VA/1KVA/1.5KVA line interactive UPS
- Built-in super smart charger, shorten 50% of charging time
- Excellent microprocessor control guarantees high reliability
- Boost and buck AVR for voltage stabilization
- Auto restart while AC is recovering
- Simulated sine wave
- Off-mode charging
- Cold start function
- Optional USB/RS-232 communication port and RJ-11/RJ-45 protection
- Offering LED and LCD panels for selections

FULL SPECIFICATIONS

MODELS		PRO700 (V/VU)	PRO850 (V/VR/SU)	PRO1200 (SV/SVU)	PRO1500 (V/VU)
Capacity	Volt-Amp	650VA	850VA	1000VA	1500VA
	Watt	360W	480W	600W	900W
INPUT					
Voltage		110/120 VAC or 220/230/240VAC	220/230/240VAC	110/120 VAC or 220/230/240VAC	
Voltage Range		±25%			
Frequency Range		60/50Hz (Auto-Sensing)			
OUTPUT					
AC Voltage Regulation (Battery Mode)		±10%			
Frequency Range (Battery Mode)		50Hz ±1Hz or 60Hz ±1Hz			
Transfer Time		Typical 2-6 ms, 10ms max.			
Waveform (Battery Mode)		Simulated Sinewave			
BATTERY					
Number & Type of Battery		1×12V7AH	1×12V10AH	2×12V7AH	2×12V9AH
Typical Recharge time		4-6 hours recover to 90% capacity			
PROTECTION					
Full Protection		Overload, Discharge and Overcharge Protection			
INDICATION					
LED Display		AC Mode - Green Lighting Battery Mode - Yellow Lighting Charging Mode - Green Flashing every 2 seconds Overload - Red Flashing every 0.5 second Fault - Red Lighting Low Battery Alarm - Sounding every 2 seconds Overload Alarm - Sounding every 0.5 second Fault Alarm - Continuously Sounding			
ALARM					
Battery Mode		Sounding every 10 seconds			
Low Battery		Sounding every second			
Overload		Sounding every 0.5 second			
Battery Replacement Alarm		Sounding every 2 seconds			
Fault		Continuously Sounding			
PHYSICAL					
Dimension in MM (D×H×W)		287×100×142		350×146×160	397×146×205
Net Weight (kgs)		4.25	4.9	8	11.1
ENVIRONMENT					
Humidity		0~90% Relative Humidity @ 0~40°C (Non-Condensing)			
Noise Level		Less than 40dB			
MANAGEMENT					
Optional USB / RS-232 Port		Support Windows® 2000/2003/XP/Vista/2008, Windows® 7, Linux, Unix and MAC			

APPLICATION



PC



Printer



Work-Stations

IPS SERIES



- 3 type of capacity model available: IPS500, IPS1000, IPS2000.
- Super efficient DC to AC conversion, minimizing charging losses.
- High frequency technology, provides critical overload protection.
- User selectable for accepting wider input voltage.
- Full automatic start operation and silent operation.
- Compact size for convenient use and storage.
- Small scale and cost effective inverter for home appliances and office equipment.
- Two steps intelligent charging control to reduce the recharging time.
- Eco-friendly and non-polluting (green device).

FULL SPECIFICATIONS

MODELS		IPS500	IPS1000	IPS2000	IPS3000 (P/R)	IPS5000 (R/L)
Capacity	Volt-Amp	500VA	1000VA	2000VA	3000VA	5000VA
	Watt	300W	600W	1200W	2500W	4200W
INPUT						
Nominal Voltage		110/120VAC or 220/230/240VAC				
Acceptable Voltage Range	Narrow Range	90~145VAC or 170~280VAC				
	Wide Range	50~145VAC or 90~280VAC				
OUTPUT						
Nominal Voltage		120V or 230VAC				
Voltage Regulation		10% or -18% (Battery Mode)				
Frequency		50Hz or 60Hz				
Frequency Regulation		±0.1Hz (Battery Mode)				
Output Waveform		Modified Sinewave				
Transfer Time		10-20ms Typical, 40ms Max				
BATTERY						
Charging Current		8Amp ±1Amp	10Amp ±1Amp		20Amp	10/20Amp
DC Voltage		12V	24V	24V/48V	48V/96V	
Overcharge Protect		15V	30V	30V/60V	60V/120V	
INDICATION						
LCD		NA			User Friendly LCD Display	
LED	AC Mode	Green Lighting			NA	
	Battery Mode	Yellow Lighting				
	Charging Mode	Green Flashing every 2 seconds				
	Overload	Red Flashing every 0.5 second				
	Fault	Red Lighting				
	Low Battery Alarm	Sounding every 2 seconds				
	Overload Alarm	Sounding every 0.5 second				
Fault Alarm		Continuously Sounding				
GENERAL						
AC to AC Efficiency		> 95%				
DC to AC Efficiency		> 80%				
Protection		Discharge, Overcharge and Overload Protections				
Environment		0~40°C, 0~90°C relative humidity (Non-Condensing)				
Noise Level		Less than 50dB			Less than 60dB	
Net Weight (Without Batteries) (kgs)		2.0	2.3	2.5	8.5	9.0
Dimension (mm) D×W×H		255×80×224			470×350×110	

Note:
Product specifications are subject to change without prior notice.

Indications:
"P" represents 24VDC
"R" represents 48VDC
"L" represents 96VDC

REAR PANEL

- 1 Battery 12V, 24V, 48V, 96V
- 2 Input Protector
- 3 Input Socket
- 4 Output Socket
- 5 Narrow/Wide Selector



PDC SERIES- DC UPS



- Dual DC Outputs
- Microprocessor controlled guarantees high reliability
- Compact size for standing and mounting flexibility
- Supports solar powered devices and communication applications
- Auto restart while AC is recovering
- Off-mode charging
- Overload protection and short circuit protection

SPECIFICATION

MODEL	PDC 50
Capacity	50W
INPUT	
Voltage	110VAC or 220VAC
Voltage Range	80~140VAC or 160~280VAC
Frequency Range	60Hz or 50Hz
OUTPUT	
Output Voltage	12VDC
Output Voltage Regulation	10V~13.7V
Transfer Time	0ms
EFFICIENCY	
AC Mode	>75%at Nominal Voltage (Battery Fully Charged)
Battery Mode	>95%at Full Load
BATTERY	
Battery Type	12V9AH×1
Charging Voltage	13.7V ±0.25V
Charging Current	2.8A or 2.3A at Nominal Voltage without Load
Typical Recharge Time	4~6 hours recover to 90%capacity
INDICATORS	
AC Mode	Green Lighting
Battery Mode	Yellow Lighting
Low Battery	Yellow Flashing
Fault	Red Lighting
PROTECTION	
Full Protection	Short Circuit and Overload Protection
PHYSICAL	
Dimension (mm) D×W×H @ Vertically Stand	228×82.5×207
Net Weight (kgs)	3
OPERATING ENVIRONMENT	
Humidity	0~90%
Temperature	0°C~40°C

PCC SERIES



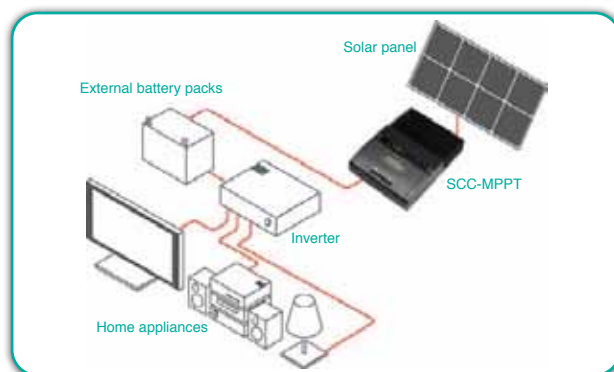
PCC Series Models:

- Intelligent Maximum Power Point Tracking technology
- Built-in DSP controller with high performance
- Automatic battery voltage detection
- Three-stage charging optimizes battery performance
- Auto load-detection
- Multifunction LCD displays detailed information
- Reverse polarity protection of solar panel and battery
- Overcharge and overload protection
- IP 43 protection for outdoor and harsh environment ^{#1}
- IP 21 protection ^{#2}
- Suitable for battery types of sealed lead acid, vented Gel, and NiCd
- Standard RJ45 port or optional RS-485 communication port for remote monitoring

STANDALONE SOLAR POWER SYSTEM

Combined MPPT technology and DSP controller, PCC Series will convert best voltage to charge battery based on varied temperature. Compared to traditional solar charge controller, it allows your solar panels to operate at their optimum power output voltage, providing higher efficiency up to 97.8% with lower power loss.

Integrated PCC Series with inverter, solar panel, and external battery packs, it will become a standalone solar power system to generate green power for your home appliances. PCC Series will convert solar power to charge external batteries, and then provide power to home appliances via inverter.



SPECIFICATION

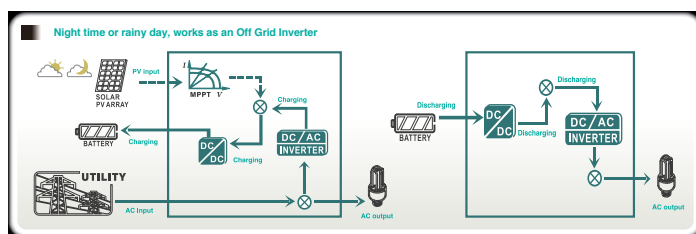
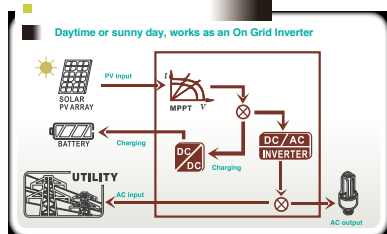
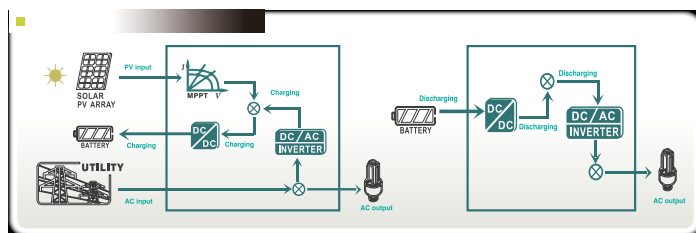
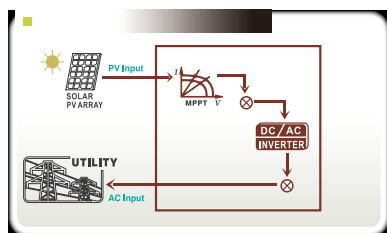
MODEL	PCC 300	PCC 600	PCC 3000
Capacity	300W	600W	3000W
INPUT			
MPPT Range @ Operating Voltage	15~33V @ 12V	30~66V @ 24V	60~132VDC
Maximum PV Array Open Circuit Voltage	50V	75V	150VDC
Maximum Current	18A		45A
OUTPUT			
Nominal Battery Voltage	12V	24V	48V
Connected Battery Type	Sealed Lead Acid, Vented, Gel, NiCd Battery		
Maximum Charging Current	25A		60A
Ripple Voltage	<±1V		
Maximum Efficiency	97.8%		98%
Standby Power Consumption	1W	2W	
Charging Method	Three Stages: Bulk, Absorption & Floating		
PROTECTIONS			
Overload Protection	> 110%: Audiable Alarm		Yes
Overcharge Protection	Yes		
Polarity Reversal Protection @ Solar Cell & Battery	Yes		
INDICATORS			
LCD Panel	LCD Panel indicating Solar Power, Output Power, Battery Voltage, Charging Current, and Fault Conditions		
LED Display	Three indiators: Solar, Charging & Load Status		Three indicators: Solar, Battery & Wiring Fault
PHYSICAL			
Dimension (mm) D×W×H	135×170×57.5	220×170×57.5	180×210×80
Net Weight (kgs)	0.92kgs	1.85kgs	1.28
Connector	Input or Output Terminal Block		
Type of Mechanical Protection	IP43		IP21
ENVIRONMENT			
Humidity	0~90% Relative Humidity (Non-Condensing)		
Operating Temperature	-20°C to 55°C		
Storage Temperature	-40°C to 75°C		
Altitude	0~3000m		

PSI HYBRID SERIES



- 3KW hybrid inverter
- Pure sine wave output
- Microprocessor controlled to guarantee stable charging system
- Multiple operations: Grid tie, Off grid, and grid-tie with backup
- Built-in MPPT solar charger
- LCD display panel for comprehensive information
- Multiple communication
- Green substitution for generators
- User-adjustable charging current up to 25A

MULTIPLE OPERATIONS



SPECIFICATION

MODEL	HYBRIDE 3K
Capacity	3000W
DC INPUT	
Maximum DC Voltage	500VDC
MPP Voltage Range	110VDC~450VDC
DC Nominal Voltage	360VDC
Start-up Voltage / Initial Feeding Voltage	125VDC / 125VDC
Maximum Input Current	13A
GRID / UTILITY INPUT (AC)	
Nominal AC Voltage	220VAC
Acceptable Voltage Range	170~280VAC
Maximum Input Current	20A
GRID OUTPUT (AC)	
Nominal AC Voltage / Range	220VAC / 184~265VAC
Maximum Feeding Power	3000W
AC Grid Frequency Range	47.5~50.2Hz
Nominal Output Current	13A
Power Factor	>0.99
BATTERY MODE OUTPUT (AC)	
Output Voltage	220VAC
Output Frequency	50Hz
Output Waveform	Pure Sinewave
Efficiency (DC to AC)	90%
BATTERY & CHARGER	
Nominal DC Voltage	48VDC
Maximum Charging Current	25A
PHYSICAL	
Dimension (mm) D×W×H	420×415×170
Net Weight (kgs)	15.5
INTERFACE	
Communication Port	RS-485 / RS-232
Intelligent Slot	Optional SNMP Card and Modbus Card available
Wireless Connection	Optional Zigbee Card and Wireless device available
ENVIRONMENT	
Humidity	0~90% Relative Humidity (Non-Condensing)
Operating Temperature	-25°C to 60°C
Altitude	0~1000m (Power derating 1%every 100m when altitude is over 1000m)

PSI ON-GRID SERIES

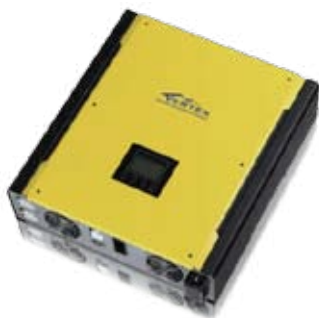


- 1.5KW/2KW/3KW/5KW & 3-phase 10KW on-grid PV inverter
- Advanced DSP control technology delivers accurate data
- Smart MPPTs to enhance overall efficiency
- Up to 96% high conversion efficiency for 1.5KW-5KW and 98% for 10KW
- Modularized design for easy maintenance
- Industrial-grade components used for robust operation
- Data log up to 15 years
- IP 65 protection for outdoor and harsh environment
- Comprehensive LCD monitor for easy-reading
- 5-year product warranty
- Free monitoring software

SPECIFICATION

MODEL		AMNETZ 1500	AMNETZ 2000	AMNETZ 3000	AMNETZ 5000	AMNETZ 10K
Capacity	Watt	1500W	2000W	3000W	5000W	10000W
Phase		1 Phase-In 1 Phase-Out				3 Phase-In 3 Phase-Out
INPUT (DC)						
Maximum DC Power		1650VDC	2200W	3200W	5300W	11000VDC
Maximum DC Voltage		450VDC	500VDC	500VDC	500VDC	900VDC
MPP Voltage range		150~450VDC	200~450VDC	150~450VDC		320~800VDC
Nominal DC Voltage		360VDC		370VDC		600VDC
Start-up Voltage / Initial Feeding Voltage		125/150VDC		116/150VDC		250/250VDC
Maximum Input Current / Per String		1×11A / 11A		2×10A / 10A	2×16A / 16A	2×17A / 17A
Number of MPP Trackers / String per MPP Tracker		1 / A:1		2 / A:1, B:1		
OUTPUT (AC)						
AC Nominal Power		1500W	2000W	3000W	5000W	10000W
Maximum AC Apparent Power		1500VA	2000VA	3000VA	5000VA	10000VA
Nominal AC Voltage		230VAC	230VAC	230VAC	230VAC	3/N/PE, 230/400VAC
AC Voltage Range		-20%~+15%				
AC Grid Frequency		50Hz				
AC Grid Frequency Range		47.5~50.2Hz				
Nominal Output Current		6.9A	9.1A	13A	21.7A	14.5A
Power Factor		>0.99				>0.89
EFFICIENCY						
Maximum Efficiency		96.0%		96.5%		98.0%
Maximum Efficiency @ Nominal Voltage & 100% Load		95.0%		95.5%		97.0%
PROTECTION						
DC Reverse-Polarity Protection		Yes				
Ground Fault Monitoring		Yes				
Grid Monitoring		Yes				
AC Short Circuit Protection		Yes				
PHYSICAL						
Dimension (mm) D×W×H (without Wheels)		146.5 × 283.6 × 398.6		144 × 266 × 466	158 × 303 × 520	171.2 × 503.5 × 653.3
Net Weight (kgs)		11		20.5	25.0	40
INTERFACE						
Intelligent Slot		USB Card / Optional : SNMP, RS-232, ModBus, AS-400 and GPRS Cards		ModBus Card / Optional : SNMP, RS-232, USB, AS-400 and GPRS Cards		
ENVIRONMENT						
Humidity		0~100% Relative Humidity (Non-Condensing)				
Operating Temperature		-25~60°C			-25~55°C	-25~60°C
Altitude		0~1000m (Power derating 1%every 100m when altitude is over 1000m)				
COMPLIANCE						
Quality		ISO9001/ISO14001				
Standard		CE, VDE 0126-1-1, IEC62109, ENEL Guide 2009, RD 1663, G83/1-1, AS3100/AS4777				

PSI OFF-GRID SERIES



- DSP plus microprocessor redundant controllers guarantee high reliability
- Pure sine wave output
- Multiple power sources: Solar power, AC main, 48V DC battery
- Built-in MPPT tracker
- Isolation design between inverter and battery for safety guarantee
- Smart LCD display electricity generated, recorded up to 15 years
- Provides multiple communication ports for remote monitoring with software
- Standard RS-232/USB ports and optional Modbus, SNMP, GPRS communication, and AS400 dry contact are available
- User-adjustable charging current up to 25A
- High efficiency: Solar panel to AC output peak efficiency 95.5%
- High efficiency: Battery to AC output peak efficiency 92%
- Option: On-Grid

SPECIFICATION

MODEL	OFFNETZ 2000	OFFNETZ 3000
Capacity	2000W	3000W
PV INPUT (DC)		
Maximum DC Voltage	500VDC	500VDC
Work Voltage Range	100~500VDC	100~500VDC
Full Load MPP Voltage Range	170~450VDC	250~450VDC
Maximum Input Current	13A	
AC INPUT		
Nominal AC Voltage	100/110/120/127VAC	208/220VAC or 230/240VAC
Acceptable Voltage Range	85~125VAC	175~265VAC or 175~280VAC
Acceptable Frequency Range	57.5~62.5Hz	47.5~52.2Hz
Maximum Input Current	31A	20A
BATTERY MODE OUTPUT (AC)		
Output Voltage	100/110/120/127VAC	208/220VAC or 230/240VAC
Output Frequency	60Hz	50Hz
Output Waveform	Pure Sinewave	
THDv	<3% @ Linear Load	
Power Factor	>0.99	
Efficiency (DC to AC)	90%	92%
Overload Capability	>110% : 5mins; >150% : 1min; 200% : immediately	
BATTERY & CHARGER		
Nominal DC Voltage	48VDC	
Maximum Charging Current	25A	
PHYSICAL		
Dimension (mm) D×W×H (without Wheels)	420 × 415 × 170	
Net Weight (kgs)	15.5	
INTERFACE		
Communication Port	RS-232 / USB	
Intelligent Slot	Optional SNMP Card, ModBus Card, GPRS Card, and AS-400 Card available	
ENVIRONMENT		
Humidity	0~90% Relative Humidity (Non-Condensing)	
Operating Temperature	0~40°C	
Altitude	0~1000m (Power derating 1%every 100m when altitude is over 1000m)	

STANDALONE SOLAR POWER STATION

Power Your TV, Fan, and Lighting running 3.5 hours at very low cost

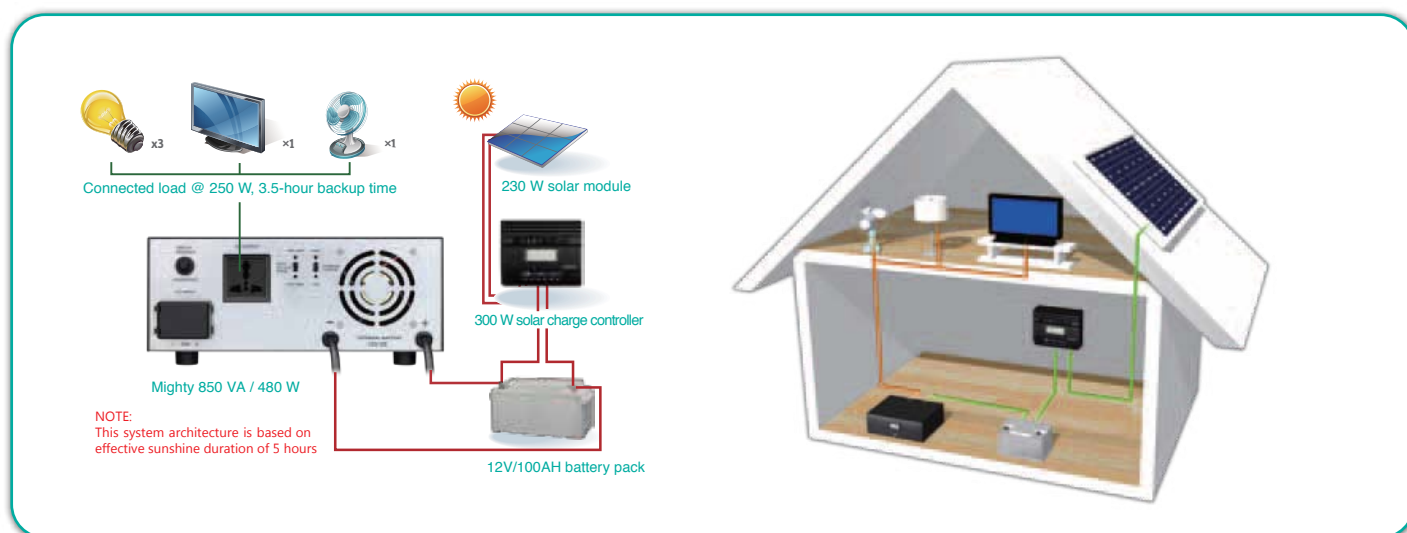
- Easy installation: No technician need
- Low cost
- Unlimited and clean power source from sun

This low cost solar power station consists of a solar charge controller, one inverter, one solar module, and one external battery pack. Compared with generator, this solar power station provides clean power and cheaper operation cost.

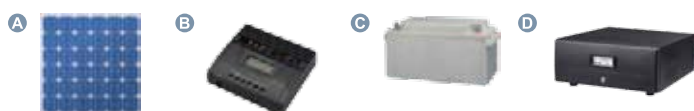
If expecting to run 1 TV, 1 Fan, 3 Lamps for 3.5 hours based on effective sunshine duration of 5 hours per day, the whole solar power station consist of one 300W solar charge controller, one 230W solar panel, one 850VA inverter, and one 12V/100AH battery. And no cost for fuel as sun light is free. Much lower cost compare with run by generator.



SYSTEM ARCHITECTURE



OVERVIEW OF PACKAGE CONTENTS



- (A) 1×Solar Module 230W
- (B) 1×Solar Controller 300W
- (C) 1×Battery Pack 12V100AH
- (D) 1×Mighty Inverter 850VA / 480W

SUITABLE APPLIANCES:

- Lighting
- TV
- Computer
- Fan
- Mobile phone
- etc

WHY USING SOLAR POWER STATION INSTEAD OF GENERATOR?

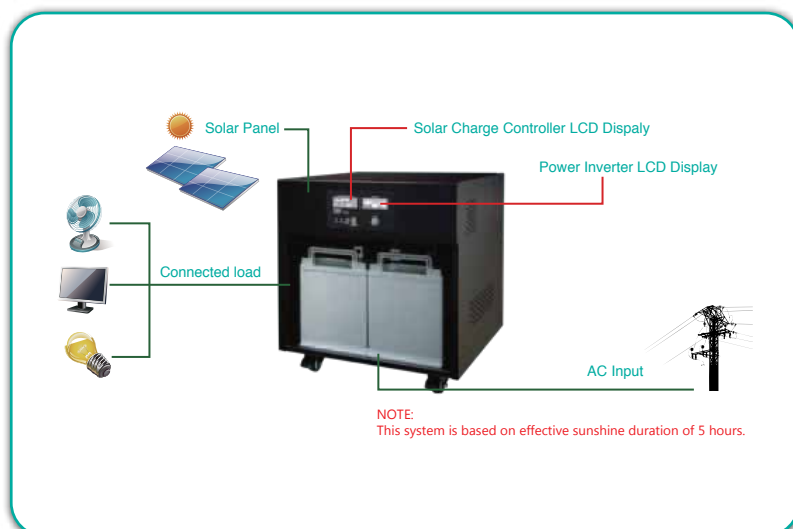
- Lower cost than using generator; zero operation cost.
- No pollution, no noise.



PSS SERIES



- Easy installation: No technician need
- Low cost
- Unlimited and clean power source from sun
- Expandable based on project need



SPECIFICATION

MODEL		SONNENSYS 850	SONNENSYS 1500	SONNENSYS 1500 PRO
Capacity	Volt-Amp	850VA	1500VA	
	Watt	480W	1050W	
INPUT (AC)				
Voltage		120VAC or 230VAC	230VAC	
Selectable	For PCs	95~145VAC or 180~260VAC	180~260VAC	
Voltage Range	For Home Appliances	50~160VAC or 100~300VAC	100~300VAC	
Frequency Range		50/60Hz (Auto-Sensing)		
OUTPUT (AC)				
AC Voltage Regulation (Battery Mode)		100~120VAC ±5% or 200~230VAC ±5%	200~230VAC ±5%	230VAC ±5%
Transfer Time		20ms Typical		
Waveform (Battery Mode)		Simulated Sinewave		Pure Sinewave
SOLAR CHARGER				
MPPT Range @ Operating Voltage		15~33 VDC	30~66V	
Maximum PV Array Open Circuit Voltage		50VDC	75VDC	
Maximum PV Array Power		300W	600W	
Maximum Charging Current		18A		
BATTERY				
Numbers & Type of Battery		1×12V100AH	2×12V100AH	
Battery Voltage		12VDC	24VDC	
Floating Charge Voltage		13.7VDC ±2%	27.4VDC ±2%	
Low Battery Alarm Voltage		10.2VDC ±2%	20.4VDC ±2%	
Shutdown Voltage		9.9VDC ±2%	19.8VDC ±2%	
Overcharge Protection		15.0VDC ±2%	30.0VDC ±2%	
Maximum Charging Current		35A (10A AC Charger + 25A Solar Charger) or 45A (20A AC Charger + 25A Solar Charger)		
PROTECTION				
Full Protection		Overload & Short Circuit Protection		
ALARM				
Low Battery		Sounding every second		
Overload		Sounding every 0.5 second		
Battery Replacement		Sounding every 2 seconds		
Fault		Continuously Sounding		
PHYSICAL				
Dimension (mm) D×W×H (without Wheels)		480 × 250 × 450	480 × 420 × 420	
Net Weight (kgs)		53	92	94
OPERATING ENVIRONMENT				
Humidity		0~90% Relative Humidity (Non-Condensing)		
Temperature	Operating	0~50°C		
	Storage	-15~70°C		

VIEWPOWER - UPS MANAGEMENT SOFTWARE



- Allows control and monitoring of multiple UPSs via LAN and INTERNET
- User-friendly power analysis graphs
- Real-time dynamic graphs of UPS data
- Safely OS shutdown and protection from data loss during power failure
- Warning notifications via audible alarm, broadcast, mobile messenger, and e-mail
- Scheduled UPS on/off, battery test, programmable outlet control, and audible alarm control
- Password security protection and remote access management
- Supports multiple OS and local languages

SOLAR POWER PRO - PV SYSTEM MONITORING SOFTWARE



SolarPower Pro is a solar inverter monitoring software to monitor up to 247 devices via modbus interface. It also provides web browser capability in a networked environment. The major functions of SolarPower Pro monitoring software include data log for device, power generation statistics, alarm messages, fault messages, and parameter setting for devices.

- Allows control and monitoring of multiple devices via LAN and INTERNET
- Automatic and real-time data acquisition of devices and secured data log saving
- Graphic display of device data for quick and easy reading
- Warning notifications or fault alarms via audible alarm, pop-up screen, broadcast, mobile messenger, tray message and e-mail
- Easy diagnosis from event statistics and amount calculation for energy saving
- Maximum data log up to 10 billion records
- Supports online upgrade and manually upgrade
- Supports multiple languages: English, Chinese, French, German, Spanish, Russian, Portuguese, Ukrainian, Italian, Polish

SNMP CARD



+



(Integrated with ViewPower Pro software)

- Allows control and monitoring of multiple UPSs through RJ-45 network connection
- Real-time dynamic graphs of UPS data (voltage, frequency, load level, battery level)
- Warning notifications via audible alarm, broadcast, mobile messenger, e-mail and SNMP traps
- Historic data log stored in centralized PC database
- Simple firmware upgrade with one click
- Password security protection and remote access management
- Supports optional environmental monitoring detector for temperature, humidity and smoke
- 2-year product warranty

SOLARVIEW - REMOTE MONITORING DEVICE



SolarView is a remote monitoring device to guarantee comprehensive control on the whole solar system. It keeps you clearly informed about the operation status and valuable yields of solar system. It also presents the data simple, easy-reading and professionally.



AS-400 CARD



- Capable of selection the status of the dry-contact signal by setting jumper to meet different application requirements.
- Suitable applications: IBM Server, Personal PC & Workstations equipments, Auto-controlled industrial equipment & communication applications

RS-232 CARD



- RS-232 Card provides a UPS with a RS232 Serial Interface.
- RS-232 Port allows the UPS to communicate with supporting management such as Windows, Linux, Unix and MAC operating systems.

MODBUS CARD



The ModBus Card provides UPS and PV inverter systems with the functionality of communication with PCs through ModBus Protocol:

- Implements ModBus RTU Protocol
- Provides ModBus functions including read Holding Registers and write Registers
- Provides RS232 and RS485 interface

RACKMOUNT SLIDER



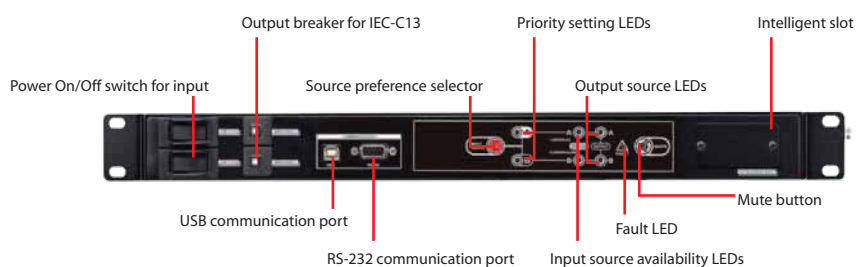
- Simple installation for mounting PROLiNK rack mount UPS System in your server rack enclosure.

AUTOMATIC TRANSFER SWITCH (ATS)



- 16A max. input current
- Powered by two separately independent power sources
- Dual power supply for redundancy
- Provides seamless power switch for IT equipment
- Preferred source selection on front panel
- Highly reliability 19" rack design (1U) to fit into a diverse working environment
- Built-in USB and RS-232 communications

SYSTEM CONFIGURATION



SELECTION GUIDE

MODEL	ATS
Current Rating	16A
INPUT	
Input Voltage	230VAC
Acceptable Input Voltage	207~253VAC
Input Frequency	50Hz / 60Hz
OUTPUT	
Output Voltage	230VAC
Maximum Output Current	10A for IEC-C13 Outlets 16A for IEC-C19 Outlets
CONNECTION	
Input	2×IEC-C20 Inlets
Output	8×IEC-C13 1×IEC-C19
Communication	USB / RS-232
Transfer Time	9~12ms (Typical)
PHYSICAL	
Dimension (mm) D×W×H	310×430×44
Net Weight (kgs)	3.65
ENVIRONMENT	
Operating Temperature	20~95% Relative Humidity @ -5°C~45°C (Non-Condensing)

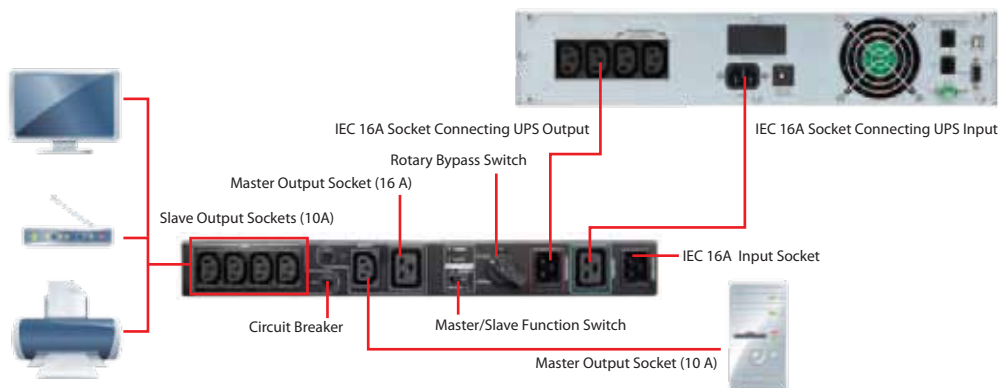
PDU & MAINTENANCE BYPASS SWITCH



- 16A for 208/220/230/240 VAC, 20A for 110/115/120/127 VAC
- Provides continuous power to connected equipment during UPS maintenance
- Easy operation with simple rotary switch and indicators
- Master-slave function for energy saving
- Provides a large number of sockets for extended usage
- Provides rack and tower designs to fit into a diverse working environment
- Simple installation with plug-and-play socket type
- Suitable for all UPSs up to 3KVA



SYSTEM CONFIGURATION



SELECTION GUIDE

MODELS		Rack Type	Tower Type
Current Rating		16A Max. for 208/220/230/240 VAC 20A Max. for 110/115/120/127 VAC	
Voltage Rating		208/220/230/240 VAC or 110/115/120/127 VAC	
Master/Slave Function		Yes. When power consumption in Master Outlet is lower than 20W (±5W), it will shut off the power for slave outlets.	NA
CONNECTION			
Input	AC Power	1×IEC (16A) Connector & 1×Customized Plug Cable	
	UPS Input	1×IEC (16A) Connector & 1×Cable (16A~10A IEC Cable for 1k/2k, 16A~16A IEC cable for 3k)	
	UPS Output		
Output	IEC	5×IEC 10A Sockets + 1×IEC 16A Socket (with 2 circuit breakers)	8×IEC 10A Sockets + 1×IEC 16A Socket (with 2 circuit breakers)
	Schuko	4×Schuko 16A Sockets	
	UK	4×UK 13A Sockets	
	NEMA	5×NEMA 20A Sockets	6×NEMA 20A Sockets
PHYSICAL			
Dimension (mm) D×W×H	IEC	80×438×50	180×160×50
	Schuko	80×438×60	180×200×50
	UK		
	NEMA	80×438×50	180×160×50
Net Weight (kgs)		1.50	1.30
ENVIRONMENT			
Operating Temperature		20~90% Relative Humidity @ 0°C~40°C (Non-Condensing)	

UPS BATTERY BACKUP CONFIGURATION LIST

1. ONLINE – PROFESSIONAL SERIES (1P/1P) - TOWER

MODEL	DC Battery Group	30 Minutes Quantity	60 Minutes Quantity	120 Minutes Quantity	180 Minutes Quantity	240 Minutes Quantity	Remark
PRO901L	2/24VDC	C1×1 12V40AH×2	C2×1 12V40AH×4	C4×1 12V65AH×4	C6×1 12V40AH×12	C8×1 12V65AH×8	1. Without cable from UPS system to battery bank. 2. All batteries supply are without battery cables.
PRO902L	4/48VDC	C4×1 12V40AH×4	C4×1 12V40AH×8	C8×1 12V65AH×8	C12×1 12V40AH×24	C16×1 12V65AH×16	
PRO903L	6/72VDC	C3×1 12V40AH×6	C6×1 12V40AH×12	C6×1 12V100AH×6	C20×1 12V40AH×36	C20×1 12V100AH×18	
PRO906L	8/96VDC	C8×1 12V26AH×16	C16×1 12V26AH×32	C24×1 12V65AH×24	C12×1 12V40AH×48	C24×2 12V65AH×48	
PRO906LI #1	8/96VDC	C8×1 12V26AH×16	C16×1 12V26AH×32	C24×1 12V65AH×24	C12×1 12V40AH×48	C24×2 12V65AH×48	

2. ONLINE – MASTER SERIES (1P/1P) - TOWER

MODEL	DC Battery Group	30 Minutes Quantity	60 Minutes Quantity	120 Minutes Quantity	180 Minutes Quantity	240 Minutes Quantity	Remark
PRO801L	3/36VDC	C1×1 12V26AH×3	C3×1 12V26AH×6	C2×1 12V38AH×3	C12×1 12V26AH×18	C3×1 12V38AH×6	1. Without cable from UPS system to battery bank. 2. All batteries supply are without battery cables.
PRO815L	3/36VDC	C2×1 12V40AH×3	C3×1 12V40AH×6	C3×1 12V100AH×3	C12×1 12V40AH×18	C6×1 12V100AH×6	
PRO802L	6/72VDC	C3×1 12V26AH×6	C6×1 12V26AH×12	C6×1 12V65AH×6	C20×1 12V26AH×36	C12×1 12V65AH×12	
PRO803L	6/72VDC	C3×1 12V40AH×6	C6×1 12V40AH×12	C6×1 12V100AH×6	C20×1 12V40AH×36	C12×1 12V100AH×12	
PRO806L	20/240VDC	C12×1 12V26AH×20	C4×2 12V18AH×40	C20×1 12V26AH×40	C32×1 12V40AH×60	C20×2 12V65AH×40	
PRO806LI #1	20/240VDC	C12×1 12V26AH×20	C4×2 12V18AH×40	C20×1 12V26AH×40	C32×1 12V40AH×60	C20×2 12V65AH×40	
PRO806CL	20/240VDC	C12×1 12V26AH×20	C4×2 12V18AH×40	C20×1 12V26AH×40	C32×1 12V40AH×60	C20×2 12V65AH×40	
PRO806CLI #1	20/240VDC	C12×1 12V26AH×20	C4×2 12V18AH×40	C20×1 12V26AH×40	C32×1 12V40AH×60	C20×2 12V65AH×40	
PRO810L	20/240VDC	C12×1 12V40AH×20	C20×1 12V40AH×40	C20×2 12V65AH×40	C20×3 12V40AH×120	C20×2 12V100AH×40	
PRO810LI #1	20/240VDC	C12×1 12V40AH×20	C20×1 12V40AH×40	C20×2 12V65AH×40	C20×3 12V40AH×120	C20×2 12V100AH×40	
PRO810CL	20/240VDC	C12×1 12V40AH×20	C20×1 12V40AH×40	C20×2 12V65AH×40	C20×3 12V40AH×120	C20×2 12V100AH×40	
PRO810CLI #1	20/240VDC	C12×1 12V40AH×20	C20×1 12V40AH×40	C20×2 12V65AH×40	C20×3 12V40AH×120	C20×2 12V100AH×40	

3. ONLINE – MASTER SERIES (1P/1P) – 2-IN-1 RACK/TOWER

MODEL	DC Battery Group	30 Minutes Quantity	60 Minutes Quantity	120 Minutes Quantity	180 Minutes Quantity	240 Minutes Quantity	Remark
PRO801RL	2/24VDC	C1×1 12V40AH×2	C2×1 12V40AH×4	C3×1 12V100AH×2	C6×1 12V40AH×12	C4×1 12V100AH×4	1. Without cable from UPS system to battery bank. 2. All batteries supply are without battery cables.
PRO815RL	3/36VDC	C3×1 12V65AH×3	C6×1 12V65AH×6	C3×1 12V100AH×3	C20×1 12V65AH×18	C6×1 12V100AH×6	
PRO802RL	4/48VDC	C2×1 12V40AH×4	C4×1 12V40AH×8	C4×1 12V100AH×4	C12×1 12V40AH×8	C8×1 12V100AH×8	
PRO803RL	6/72VDC	C3×1 12V40AH×6	C6×1 12V40AH×12	C6×1 12V100AH×6	C20×1 12V40AH×36	C12×1 12V100AH×12	
PRO806RL	20/240VDC	C12×1 12V26AH×20	C20×1 12V26AH×40	C20×1 12V65AH×20	C32×1 12V26AH×120	C20×2 12V65AH×40	
PRO810RL	20/240VDC	C12×1 12V40AH×20	C20×1 12V40AH×40	C20×1 12V100AH×20	C32×1 12V40AH×120	C20×2 12V100AH×40	

4. ONLINE – MASTER SERIES (3P/1P) – TOWER

MODEL	Battery Group / DC	30 Minutes Quantity	60 Minutes Quantity	120 Minutes Quantity	180 Minutes Quantity	240 Minutes Quantity	Remark
PRO83110L	20	C12×1 12V40AH×20	C20×1 12V40AH×40	C20×2 12V65AH×40	C32×2 12V40AH×120	C20×2 12V100AH×40	1. Without cable from UPS system to battery bank. 2. All batteries supply are without battery cables.
PRO83110LI #1	20	C12×1 12V40AH×20	C20×1 12V40AH×40	C20×2 12V65AH×40	C32×2 12V40AH×120	C20×2 12V100AH×40	
PRO83115L	20	C20×1 12V26AH×40	C20×2 12V26AH×80	C20×2 12V100AH×40	C32×4 12V26AH×240	C20×4 12V100AH×80	
PRO83115LI #1	20	C20×1 12V26AH×40	C20×2 12V26AH×80	C20×2 12V100AH×40	C32×4 12V26AH×240	C20×4 12V100AH×80	
PRO83120L	20	C20×1 12V40AH×40	C20×2 12V40AH×80	C20×2 12V100AH×40	C32×4 12V40AH×240	C20×4 12V100AH×80	
PRO83120LI #1	20	C20×1 12V40AH×40	C20×2 12V40AH×80	C20×2 12V100AH×40	C32×4 12V40AH×240	C20×4 12V100AH×80	

5. ONLINE – MASTER SERIES (3P/1P) – RACKMOUNT

MODEL	Battery Group / DC	30 Minutes Quantity	60 Minutes Quantity	120 Minutes Quantity	180 Minutes Quantity	240 Minutes Quantity	Remark
PRO93110L	20	C12×1 12V40AH×20	C20×1 12V40AH×40	C20×2 12V65AH×40	C32×2 12V40AH×120	C20×2 12V100AH×40	1. Without cable from UPS system to battery bank. 2. All batteries supply are without battery cables.
PRO93120L	20	C20×1 12V40AH×40	C20×2 12V40AH×80	C20×2 12V100AH×40	C32×4 12V40AH×240	C20×4 12V100AH×80	

6. ONLINE – MASTER SERIES (3P/3P) – TOWER

MODEL	Battery Group / DC	30 Minutes Quantity	60 Minutes Quantity	120 Minutes Quantity	180 Minutes Quantity	240 Minutes Quantity	Remark
PRO83310L	20	C4×1 12V18AH×20	C20×1 12V26AH×20	C20×1 12V100AH×20	C32×1 12V26AH×60	C20×2 12V100AH×40	1. Without cable from UPS system to battery bank. 2. All batteries supply are without battery cables.
PRO83310LI #1	20	C4×1 12V18AH×20	C20×1 12V26AH×20	C20×1 12V100AH×20	C32×1 12V26AH×60	C20×2 12V100AH×40	
PRO83315L	20	C12×1 12V40AH×20	C12×2 12V40AH×40	C20×2 12V65AH×40	C32×2 12V40AH×120	C20×4 12V65AH×80	
PRO83315LI #1	20	C12×1 12V40AH×20	C12×2 12V40AH×40	C20×2 12V65AH×40	C32×2 12V40AH×120	C20×4 12V65AH×80	
PRO83320L	62	C12×1 12V40AH×20	C12×2 12V40AH×40	C20×2 12V100AH×40	C32×2 12V40AH×120	C20×4 12V100AH×80	
PRO83320LI #1	20	C12×1 12V40AH×20	C12×2 12V40AH×40	C20×2 12V100AH×40	C32×2 12V40AH×120	C20×4 12V100AH×80	

7. ONLINE – POWER SERIES (3P/3P)

MODEL	Battery Group / DC	30 Minutes Quantity	60 Minutes Quantity	120 Minutes Quantity	180 Minutes Quantity	240 Minutes Quantity	Remark
PRO73315L	62	C32×1 12V26AH×62	C32×2 12V26AH×124	C32×2 12V65AH×62	C32×6 12V26AH×372	C32×4 12V65AH×124	1. Without cable from UPS system to battery bank. 2. All batteries supply are without battery cables.
PRO73320L	62	C32×1 12V40AH×62	C32×2 12V40AH×124	C32×2 12V100AH×62	C32×6 12V40AH×372	C32×4 12V100AH×124	
PRO73330L	62	C32×1 12V40AH×62	C32×2 12V40AH×124	C32×2 12V100AH×62	C32×6 12V40AH×372	C32×4 12V100AH×124	
PRO73340L	62	C32×1 12V65AH×62	C32×2 12V65AH×124	C32×4 12V65AH×124	C32×6 12V65AH×372	C32×8 12V65AH×248	
PRO73360L	62	C32×2 12V100AH×62	C32×4 12V100AH×124	C32×4 12V100AH×124	C32×12 12V100AH×372	C32×8 12V100AH×248	
PRO73380L	62	C32×2 12V120AH×62	C32×4 12V120AH×124	C32×4 12V100AH×124	C32×12 12V120AH×372	C32×8 12V100AH×248	

BATTERY CONFIGURATIONS

BATTERY MODEL	CABINET DIMENSION (mm)	Available Battery Quantity					12V7AH or 12V9AH or 10AH	Cabinet Weight	Remark
		100AH	65AH	38AH	24AH	17AH			
C1	435×210×270	1	1	2	3	5	/	3.5kg	1. Install 100AH Battery & Cables 2. Exclude Switch for Offline/Online 1-20K Online Power Series, but include Cable but without Switch.
C2	450×470×320	1	2	4	4	10	/	6kg	
C3	585×470×320	3	3	6	6	14	/	8kg	
C4	450×470×615	4	4	8	8	20	/	18kg	
C6	585×470×615	6	6	12	12	28	/	22kg	
C8	780×470×615	8	8	16	16	36	/	25kg	
C12	780×470×900	12	12	24	24	/	/	32kg	
C16	780×470×1190	16	16	32	32	62	/	45kg	
C20	950×470×1190	20	20	40	40	/	/	45kg	
C24	1150×470×1190	24	24	/	/	/	/	75kg	
C32	780×880×1190	32	32	62	62	/	/	95kg	
G6							6		Completed Assembled
G12							12		
G18							18		
G60							60		
G8R							8		
G12R							12		
G20R							20		

NOTES

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